

2217-696

7/16/2002

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# BETAMEC-4 PRE-EMERGENCE GRASS KILLER

**ACTIVE INGREDIENT:**

Bensulide: S-(O,O-diisopropyl phosphorodithioate) ester of  
N-(2-mercapto)benzenesulfonamide .....

46.0%

INERT INGREDIENTS: .....

54.0%

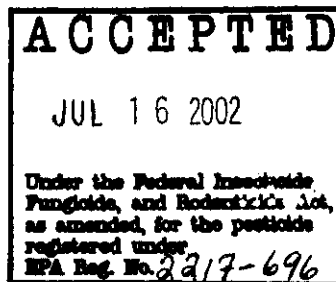
100.0%

TOTAL

Contains petroleum distillates.

This product contains 4 lbs. active ingredient per gallon.

BETASAN® is a registered trademark of The Gowan Company.



**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

See side panels for additional Precautionary Statements  
and First Aid

**NET CONTENTS: 2½ U.S. GALLONS**

845/ APxxxxxx  
EPA REG NO 2217-696  
EPA EST NO 2217-KS-1  
MANUFACTURED BY:



Telephone: 1-800-821-7925



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

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**PRECAUTIONARY STATEMENTS**

**Hazards to Humans and Domestic Animals**

**CAUTION:** Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling.

**FIRST AID**

Call a physician immediately! If a known exposure occurs or if poisoning is suspected, do not wait for symptoms to develop. Immediately initiate the recommended procedures described below and simultaneously contact a physician, the nearest hospital or Poison Control Center. Inform the person contacted of the type and extent of exposure, describe the victim's symptoms and follow the advice given.

**NOTE:** Be sure to advise the person contacted that the active ingredient in this compound is a cholinesterase inhibitor and follow the advice given.

|   |   |
|---|---|
| <b>If swallowed:</b>  | <ul style="list-style-type: none"> <li>• Immediately call a poison control center or doctor.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give <b>any</b> liquid to the person.</li> <li>• Do not give anything by mouth to an unconscious person.</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 by mouth- to-mouth if possible.</li> <li>• Call a poison control center of doctor immediately for treatment advice.</li> </ul>                 |
| <b>If on skin or clothing:</b>  | <ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>   |
| <b>If in eyes:</b>  | <ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lens, if present, after the first five minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>                        |
| <p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For additional information in case of emergency, call toll free 1-877-800-5556.</p>   |   |
| <p><b>NOTE TO PHYSICIAN:</b> This product may pose an aspiration pneumonia hazard. Contains petroleum distillate.</p> <p>Exposure to the active ingredient may cause cholinesterase inhibition. Atropine by injection is antidotal. 2-PAM (Protopam Chloride) is also antidotal when administered early and in conjunction with atropine.</p> |   |

**Personal Protective Equipment (PPE):**

Some of the materials that are chemical-resistant to the product include barrier laminate and Viton. If you want more options, follow the instructions for category G on an EPA chemical-resistance selection chart.

Mixers and loaders must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves Category A, such as butyl rubber ≥14 mils, or natural rubber ≥14 mils, or neoprene rubber ≥14 mils or nitrile rubber ≥14 mils.
- Shoes plus socks
- NIOSH-approved respirator with any N, R, P or HE filter

Applicators must wear the following:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves Category A, such as butyl rubber ≥14 mils, or natural rubber ≥14 mils, or neoprene rubber ≥14 mils or nitrile rubber ≥14 mils.
- Shoes plus socks.
- Applicators for hire (non golf course employees) must wear a dust mist NIOSH approved respirator with any N, R, P or HE filter (due to risk from repeated exposures) when applying this product to golf courses.

**User Safety Requirements:**

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

**Engineering Control Statements:**

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

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|---|
| <p><b>User Safety Recommendations:</b></p> <ul style="list-style-type: none"> <li>◆ Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.</li> <li>◆ Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.</li> <li>◆ Users should remove clothing/PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.</li> </ul> |
|---|

**ENVIRONMENTAL HAZARDS:**

This chemical is toxic to fish and aquatic invertebrates. 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 or rinsate. Do not apply when weather conditions favor drift from treated area.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

This product may impair reproduction in birds if used during the breeding season.

**PHYSICAL OR CHEMICAL HAZARDS:**

Combustible. Do not use or store near heat or open flame.

**DIRECTIONS FOR USE**

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

**STORAGE & DISPOSAL**

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

**PESTICIDE STORAGE:** Protect from temperatures below 42°F. Product crystallizes at lower temperatures. Warm or store at higher temperatures and mix to redissolve crystals and assure uniformity before use. Do not store near sources of heat or open flame. Store in original container in locked storage area.

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

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**CONTAINER DISPOSAL: Plastic Containers:** 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. **Metal Containers:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**General Use Precautions and Restrictions:**

**IMPORTANT: THIS PRODUCT WILL NOT WORK UNLESS IT IS WATERED IN FOR 10-15 MINUTES. FOR SAFETY REASONS, WATER THIS PRODUCT IN AS SOON AS POSSIBLE FOLLOWING APPLICATION FOR 10-15 MINUTES.**

**ENTRY RESTRICTIONS:**

**DO NOT ALLOW CHILDREN OR PETS ON TREATED AREAS UNTIL DRY FOLLOWING THE WATERING.**

**APPLICATION RESTRICTIONS:**

**WATERING IN MUST BE PERFORMED BY THE COMMERCIAL APPLICATOR OR THE COMMERCIAL APPLICATOR MUST PROVIDE THE ABOVE WATERING-IN INSTRUCTIONS TO THE RESIDENTS IN WRITING USING BOLD-FACE TYPE AND/OR RED PRINT OR OTHER METHODS TO ENSURE THE WARNING IS PROMINENTLY DISPLAYED ON THE MATERIAL PROVIDED TO THE RESIDENT.**

- Do not apply this product in a way that will contact people or pets.
- For use only on golf courses (greens, tees, and bentgrass fairways only) and on residential lawns.
- Do not use on parks, recreational areas, or other public sites.
- Applications on bentgrass fairways is limited to the following states: OH, PA, NY, MI, CT, MA, IN, IL, NJ, WV, MN, WI, VT, NH, RI, DE, MD, VA. Application on bentgrass fairways may only be made in the fall, and are limited to one application per year.
- Applications to greens and tees are limited to two per year.
- This product may only be broadcast applied by groundboom or by low pressure/high volume turfgun. This product may be applied by low pressure handwand for spot treatments only.
- Read all directions before using.
- Mix well before diluting with water.
- Betamec-4 may only be used for the uses specified on this label and at rates that do not exceed the labeled rates.
- Do not allow this product to drift.
- Cleanup spills on walks or patios by covering with dry soil or absorptive material. Bury sweepings and hose area.
- Betamec-4 is recommended for use on mineral soils only.
- Do not use in greenhouses.
- Do not apply this product through any type of irrigation system.

**GENERAL INFORMATION:**

Betamec-4 is recommended for use on home lawns and golf courses for control of crabgrass, annual bluegrass, and other annual weeds listed.

Application of Betamec-4 must precede emergence of weeds from the soil. Crabgrass will emerge from the soil from 4 to 6 weeks before it is visible above lawn sod. If weeds are visible above the soil it is too late to apply Betamec-4.

Remove leaves, dead tall grass, and other debris before applying Betamec-4 to turf.

Betamec-4 must be watered into the soil immediately after application. Irrigate with ½ to 1 inch of water following the herbicide application to established lawns.

| - WEEDS CONTROLLED -       |                 |                  |
|----------------------------|-----------------|------------------|
| Annual bluegrass           | Foxtails        | Redroot pigweed  |
| Barnyardgrass (Watergrass) | Goosegrass      | Shepherdspurse   |
| Deadnettle (Henbit)        | Large crabgrass | Smooth crabgrass |
| Fall Panicum               | Lambsquarters   |                  |

**APPLICATION SCHEDULES:**

The most effective program for control of crabgrass, goosegrass, annual bluegrass and other annual weeds is one specifically designed for local conditions. Two or more applications per year may be necessary, using the specified application rates give below for a particular weed problem.

For control of crabgrass, apply Betamec-4 at the specified application rate (See Rates of Application) any time from fall (September or October) through early spring for spring and summer control. With a late winter or an early spring application, the application must be made prior to crabgrass emergence.

For control of annual bluegrass and other annual weeds, apply Betamec-4 at the specified application rate before weeds emerge from the soil.

When the germination of crabgrass, annual bluegrass and other annual weeds extends into the late summer and early fall, a second application of Betamec-4 at the specified rates should be made 4 to 5 months after the initial application.

*Applications on bentgrass fairways may only be made in the fall and are limited to one application per year. Applications on bentgrass fairways is limited to the following states: OH, PA, NY, MI, CT, MA, IN, IL, NJ, WV, MN, WI, VT, NH, RI, DE, MD, VA. Applications to greens and tees are limited to two per year.*

**GRASS LAWNS:**

Betamec-4 should be applied only to well established grass lawns. It can be used on the following established turfgrasses.

|                          |                      |                       |
|--------------------------|----------------------|-----------------------|
| Bahiagrass               | Centipedegrass       | Rough stalk bluegrass |
| Bentgrass spp.           | Fescue spp.          | St. Augustinegrass    |
| Perennial bluegrass spp. | Pensacola bahiagrass | Zoysiagrass           |
| Bermudagrass spp.        | Perennial ryegrass   |                       |
|                          | Redtop               |                       |

**DICHONDRA LAWNS:**

Betamec-4 can be applied to dichondra lawns at the time of seeding or any time thereafter.

**RATES OF APPLICATION:**

*This product may only be broadcast applied by groundboom or by low pressure/high volume turfgun. This product may be applied by low pressure handwand for spot treatments only.*

**IMPORTANT: THIS PRODUCT WILL NOT WORK UNLESS IT IS WATERED IN FOR 10-15 MINUTES. FOR SAFETY REASONS, WATER THIS PRODUCT IN AS SOON AS POSSIBLE FOLLOWING APPLICATION FOR 10-15 MINUTES AND DO NOT ALLOW CHILDREN OR PETS ON TREATED AREAS UNTIL DRY FOLLOWING THE WATERING.**

Apply at a maximum of 6¼ gallons (50 pints) of Betamec-4 per acre (18 fluid ounces per 1,000 square feet) per year in two or more applications depending on the weed species and degree of infestation.

If weed specialists are unavailable to provide specific local recommendations, follow these directions:

**CRABGRASS ONLY:**

Apply 17/8 to 2½ gallons of Betamec-4 per acre with spray volumes of 80 - 100 gallons per acre. Or, apply 15 - 20 pints of Betamec-4 per acre with spray volumes of 80 - 100 gallons per acre. Or, apply 5.6 of 7.3 fluid ounces of Betamec-4 per 1,000 square feet with spray volumes of 1.8 - 2.5 gallons per 1,000 square feet.

Immediately following this herbicide application, irrigate thoroughly by applying ½ to 1 inch of water.

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**ANNUAL BLUEGRASS AND OTHER ANNUAL WEEDS:**

Apply 3 1/8 gallons of Betamec-4 per acre with spray volumes of 80 - 100 gallons per acre. Or, apply 9.4 fluid ounces of Betamec-4 per 1,000 square feet with spray volumes of 1.8 - 2.5 gallons per acre.

When a weed program involves two to three applications of Betamec-4 for crabgrass, goosegrass and annual bluegrass, the rate of application may be reduced. The rate recommendations are 1 7/8 - 2 1/2 gallons of product per acre, or 15 - 20 pints of product per acre, or 5.6 to 7.3 fluid ounces of product per 1,000 square feet. Use the higher rate for heavier infestations.

**RESEEDING:**

Any material that provides effective control of annual grasses may affect new lawn grass seedlings which germinate after treatment. Proper fertilization and watering will encourage the existing turfgrass to fill in the thin or bare spots formerly occupied by crabgrass.

The following procedures are suggested in order to minimize any stunting of turfgrasses which may occur when reseeding into Betamec-4 treated areas:

1. Do not reseed within 4 months after application
2. Renovate the area to be reseeded by raking thoroughly to scarify the soil surface. Where practical, mix peat in with the soil to provide an optimum seedbed.
3. When turf diseases or physiological disorders necessitate reseeding sooner than 4 months after Betamec-4 application, apply powdered activated charcoal prior to reseeding to deactivate the Betamec-4.
4. Apply the activated charcoal at a rate of 7 pounds in 14 gallons of water per 1,000 square feet (300 pounds in 600 gallons of water per acre).
5. Following application, irrigate the turf with sufficient water to wash the charcoal into the soil.
6. Reseed no sooner than 7 days after applying the charcoal.

**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.