

10163-198

7/23/2002

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Betasan® 12.5G

A selective herbicide with the preemergent applications intended for control of crabgrass and annual bluegrass in turfgrass

ACTIVE INGREDIENT:		% By Wt.
Bensulide: S-(O,O-Diisopropyl phosphorodithioate) ester of N-(2-mercaptoethyl) benzenesulfonamide.....		12.5%
OTHER INGREDIENTS		87.5%
		TOTAL 100.0%

This product contains 12.5 pounds of bensulide per 100 pounds.

KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID	
Organophosphate Insecticide	
If on Skin or clothing	<ul style="list-style-type: none"> 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 in eyes	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Call 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 the poison control center or doctor.
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.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-888-478-0798 for emergency medical treatment information.	
NOTE TO PHYSICIAN	
This product is an organophosphate insecticide. If symptoms of cholinesterase inhibition are present, atropine by injection is antidotal. 2-PAM is also antidotal and may be administered, but only in conjunction with atropine.	

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING

Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions on the label. For more information on an EPA chemical-resistance category selection chart, visit <http://www.epa.gov/pesticides/ppe>.

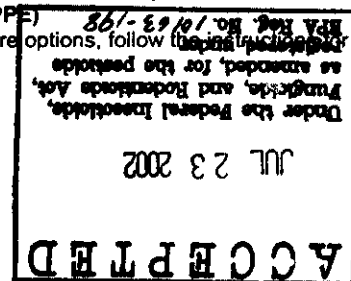
Applicators using a push type spreader and all loaders must wear:

- Coveralls over long-sleeved shirt and long pants
- Chemical resistant gloves such as barrier laminate or viton \geq 14 mil.
- Shoes plus socks
- A NIOSH-approved respirator with any N, R, P, or HE filter

All other applicators and handlers must wear:

- Long-sleeved shirt and long pants
- Chemical resistant gloves such as barrier laminate or viton \geq 14 mil.
- Shoes plus socks
- A NIOSH approved respirator with any N, R, P, or HE filter

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.



NET CONTENTS _____ POUNDS

EPA Reg. No: 10163-198
EPA Est. No: 66196-CA-1



Gowan Company
P.O. Box 5569
Yuma, Arizona 85366-5569

USER SAFETY RECOMMENDATIONS

- Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Users should 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 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 cleaning equipment or disposing of equipment washwater or rinsate. Do not apply when weather conditions favor drift from the 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.

WEEDS CONTROLLED	
Smooth Crabgrass (<i>Digitaria ischaemum</i>)	Goosegrass (<i>Eleusine indica</i>)
Hairy Crabgrass (<i>Digitaria sanguinalis</i>)	Annual bluegrass (<i>Poa annua</i>)
Redroot pigweed (<i>Amaranthus retroflexus</i>)	Shepherdspurse (<i>Capsella bursa-pastoris</i>)
Barnyardgrass (Watergrass) (<i>Echinochloa</i> spp.)	Deadnettle (Henbit) (<i>Lamium</i> spp.)
Crabgrass (Barnyardgrass) (<i>Echinochloa</i> spp.)	

DIRECTIONS FOR USE

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

Not for use on plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes. For use on plants intended for aesthetic purposes on golf courses, or lawns and grounds.

GENERAL INFORMATION

Use Betasan 12.5G on home lawns and other annual weeds.

Application of this product must precede the emergence of weeds from the soil. Crabgrass will emerge from the soil from 4-6 weeks before it is visible above the lawn sod. If weeds are visible above the soil, it is too late to apply BETASAN 12.5-G.

Remove leaves, dead or tall grass, and other debris before applying this product to the turfgrass.

GENERAL USE PRECAUTIONS AND RESTRICTIONS

ENTRY RESTRICTIONS

IMPORTANT: THIS PRODUCT WILL NOT WORK UNLESS IT IS WATERED IN FOR 10-15 MINUTES AFTER APPLICATION. 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.

APPLICATION RESTRICTIONS

WATERING-IN MUST BE PERFORMED BY THE COMMERCIAL APPLICATOR OR THE COMMERCIAL APPLICATOR MUST PROVIDE THE ABOVE WATERING-IN INSTRUCTIONS TO THE RESIDENT 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.

- Aerial application is prohibited
- Do not allow this product to drift
- Chemigation is restricted to Arizona and California only.
- Do not apply this product in a way that will contact people or pets.
- Do not apply this product in a way that will contact workers or other persons.
- 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 are limited to the following states: OH, PA, NY, MI, CT, MA, IN, IL, NJ, WV, MN, WI, VT, NH, RI, DE, MD, VA. Applications 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.
- Read all directions before using this product
- BETASAN 12.5-G should be used only for EPA-registered sites and at specified use rates.
- Do not allow children or pets on treated lawn until this product has been watered into the soil, and the grass is completely dry.
- BETASAN 12.5-G is recommended for use on mineral soils only.
- Do not apply peat moss to lawns before treating with BETASAN 12.5-G.

APPLICATION INSTRUCTIONS

The most effective program for control of crabgrass, goosegrass, annual bluegrass and other annual weeds is designed for local conditions. Two or more applications per year at specified application rates for a particular weed problem may be necessary. For additional information regarding timing and rate of application, consult weed specialists of the State Agricultural Extension Service or the State Agricultural Experiment Station.

Grass Lawns: BETASAN 12.5-G should be applied to well established lawns only. This product can be used on the following established turfgrasses: Bahiagrass, Bentgrass spp., Bermudagrass spp., Perennial bluegrass, Centipedegrass, Fescue spp., Pensacola bahiagrass, Perennial ryegrass, Rough stalk bluegrass (*Poa trivialis*), St. Augustinegrass, Red top, and Zoysiagrass. Betasan has been used safely on many Bentgrass cultivars. Since all cultivars have not been evaluated the user is urged to test the product on new cultivars with caution and on a small scale basis.

Dichondra Lawns: BETASAN 12.5-G can be applied to dichondra lawns at the time of seeding or anytime thereafter.

For the control of crabgrass, apply this product at the recommended rate anytime from fall (September or October) through early spring for spring and summer control. With a late winter or early spring application, the application must be made prior to the crabgrass emergence.

For the control of annual bluegrass and other annual weeds, apply BETASAN 12.5-G at the recommended rates before the weeds emerge from the soil.

When the germination of crabgrass, annual bluegrass, and other weeds extends into the late summer and early fall a second application of BETASAN 12.5-G at the recommended rate should be made 4-5 months after the initial application.

This product may only be applied by tractor-drawn spreader or by push type spreader. Uniform applications can be made by spreading one-half the required amount of product over the area to be treated. Then, apply the remainder of the product at right angles or perpendicular to the pattern of the first application.

APPLICATION RATES

Apply a maximum of 200 pounds of BETASAN 12.5-G per acre per year in two or more applications depending upon the weed species and the degree of infestation. Or, the equivalent maximum rate is 4.6 pounds of BETASAN 12.5-G per 1000 sq. ft. per year.

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

Crabgrass only: Apply uniformly 80 pounds of BETASAN 12.5-G per acre. Or, apply 1.8 pounds of BETASAN 12.5-G per 1000 sq. ft.

Annual Bluegrass, Goosegrass, and Other Annual Weeds: Apply uniformly 100 pounds of BETASAN 12.5-G per acre. Or, apply 2.3 pounds of BETASAN 12.5-G per 1000 sq. ft.

APPLICATION RATES PER ACRE FOR BETASAN 12.5-G.

Application Schedule	POUNDS OF BETASAN 12.5G	
	Crabgrass only	Annual bluegrass, barnyardgrass, fall panicum, foxtails, and other annual weeds
Single application	80	100
Sequential applications	80	100

APPLICATION RATES PER 1000 SQ. FT. FOR BETASAN 12.5-G.

Application Schedule	POUNDS OF BETASAN 12.5G	
	Crabgrass only	Annual bluegrass, barnyardgrass, fall panicum, foxtails, and other annual weeds.
Single application	1.8	2.3
Sequential applications	1.8	2.3

Sprinkle or irrigate the treated area with water for 10-15 minutes after application to wash the BETASAN 12.5-G into the soil.

**SPREADER SETTINGS FOR TWO TYPES OF EQUIPMENT
(Settings are for tractor-drawn or push type spreaders only)**

Spreader Type	Rate per Acre	Rate per 1000 sq. ft.	Settings with 1 Trip per application	Settings with 2 Trips per application	Pattern Width
Cyclone	80	1.8	2.6	2.3	6 ½ ft.
	100	2.3	2.8	2.5	6 ½ ft.
Scott's	100	2.3	3.5	2.5	
Central #1615A	100	2.3	4	3	
Central #1665	100	2.3	5 ½	4 ½	

RESEEDING

Herbicides that provide 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 to minimize any stunting of turfgrass which may occur when reseeding into areas treated with BETASAN 12.5-G:

1. Do not reseed within 4 months after application.
2. Renovate the area to be seeded by raking thoroughly to scarify the soil surface. Where practical, mix peat into the soil to provide an optimum seedbed.
3. When turf diseases or physiological disorders require reseeding sooner than 4 months after the application of this product, apply powdered activated charcoal prior to reseeding to deactivate the bensulide.
4. Apply the activated charcoal at 7 pounds per 1000 sq. ft. in 14 gallons of water. Or the equivalent rate is 300 pounds of activated charcoal per acre in 600 gallons of water.
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.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in a cool, dry place. Avoid contamination of food, feed, or domestic animal water supplies.

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

CONTAINER DISPOSAL: Completely empty into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

FOR 24-HOUR EMERGENCY ASSISTANCE (SPILL, LEAK OR FIRE), CALL CHEMTREC® (800) 424-9300.

For other product information, contact Gowan Company or see Material Safety Data Sheet.

NOTICE ON CONDITIONS OF SALE

Our recommendations for use of this product are based upon tests believed to be reliable. The use of this product being beyond the control of the manufacturer, no guarantee, expressed or implied, is made as to the effects of such or the results to be obtained if not used in accordance with directions or established safe practice. The buyer must assume all responsibility, including injury or damage, resulting from its misuse as such, or in combination with other materials.

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