

10163-198

3/29/2011

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Washington, D.C. 20460

OFFICE OF
CHEMICAL SAFETY AND
POLLUTION PREVENTION

MAR 29 2011

Krystal Hengl
Gowan Company
P.O. Box 5569
Yuma, AZ 85366-5569

Subject: Label Amendment (delete residential uses)
Betasan 12.5G
EPA Reg. No. 10163-198
Application Dated July 2, 2010
Resubmission Dated March 9, 2011

Dear Ms. Hengl:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable.

A stamped copy of your label is enclosed for your records. This label supersedes all previously accepted labels. You must submit one (1) copy of the final printed label before you release the product for shipment. Products shipped after eighteen (18) months from the date of this letter or the next printing of the label, whichever occurs first, must bear the new revised label. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA §6(e). Your release for shipment of the product constitutes acceptance of these conditions.

If you have any questions, please contact Mindy Ondish at (703) 605-0723 or at ondish.mindy@epa.gov.

Sincerely,

Kable Bo Davis
Product Manager 25
Herbicide Branch
Registration Division (7505P)

2025

BETASAN™ 12.5G

Granular Selective Herbicide with Preemergent Applications to Control Crabgrass and Annual Bluegrass in Golf Course Turf

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 Herbicide	
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 herbicide. 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 CAUTION

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 for category G on an EPA chemical-resistance category selection chart.

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 ≥ 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 ≥ 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



Produced For:
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.

DIRECTIONS FOR USE

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

WEEDS CONTROLLED	
Smooth Crabgrass (<i>Digitaria ischaemum</i>)	Goosegrass (<i>Eleusine indica</i>)
Large 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.)
Lambsquarters (<i>Chenopodium album</i>)	

PRODUCT INFORMATION

Use Betasan 12.5G on golf course turf for control of listed 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 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.

USE 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

- Do not apply this product in a way that will contact workers or other persons.
- Keep unprotected persons out of treated areas until grass is completely dry.
- For use only on golf courses (greens, tees and bentgrass fairways only).
- 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 is used only for EPA-registered sites and at specified use rates.
- BETASAN 12.5-G is for use on mineral soils only.
- Do not apply peat moss to turf grasses 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 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.

TURF GRASSES: Apply BETASAN 12.5-G to well established golf course turf 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.

~~For the control of crabgrass, apply this product at the specified 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 specified 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 specified 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 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 application	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 application	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 TYPES OF EQUIPMENT
(Settings are for tractor-drawn or push type spreaders only)**

Make of Spreader	Rate per Acre	Rate per 1,000 sq.ft.	Settings with 1 Trip per application	Settings with 2 Trips per application	Pattern Width
Cyclone	80	1.8 lbs.	2.6	2.3	6 ½ ft.
	100	2.3 lbs.	2.8	2.5	6 ½ ft.
Scott's	100	2.3 lbs.	3.5	2.5	
Central #1615A	100	2.3 lbs.	4	3	
Central #1665	100	2.3 lbs.	5 ½	4 ½	
Earthway	80	1.8 lbs.	10 + 4 notches		7 ft.
	100	2.3 lbs.	10 + 2 notches		7 ft.
Scotts	80	1.8 lbs.	F-G		9 ft.
	100	2.3 lbs.	G		9 ft.
Lesco	80	1.8 lbs.	F		9 ft.
	100	2.3 lbs.	H-3		9 ft.
Spiker	80	1.8 lbs.	2-9		7 ft.
	100	2.3 lbs.	3.1		7 ft.
Scotts (Andersons) (LESCO Key Setting)	80 lbs.	1.8 lbs.	I		9 ft.
	80 lbs.	1.8 lbs.	11		9 ft.
Scotts (Andersons) (LESCO Key Setting)	100 lbs.	2.3 lbs.	J		9 ft.
	100 lbs.	2.3 lbs.	13		9 ft.
LESCO (LESCO Key Setting)	80 lbs.	1.8 lbs.	G		9 ft.
	80 lbs.	1.8 lbs.	10		9 ft.
LESCO (LESCO Key Setting)	100 lbs.	2.3 lbs.	H		9 ft.
	100 lbs.	2.3 lbs.	11		9 ft.
Earthway (LESCO Key Setting)	80 lbs.	1.8 lbs.	8		7 ft.
	80 lbs.	1.8 lbs.	6		7 ft.
Earthway (LESCO Key Setting)	100 lbs.	2.3 lbs.	10		7 ft.
	100 lbs.	2.3 lbs.	8		7 ft.

RESEEDING

Herbicides that provide effective control of annual grasses may affect new 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 must be disposed of on site or at an approved waste disposal facility.
CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling, if available, or 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 OF CONDITIONS OF SALE AND WARRANTY AND LIABILITY LIMITATIONS

Important: Read the entire Directions for Use and Notice of Conditions of Sale and Warranty and Liability Limitations before using this product. If terms are not acceptable return the unopened container for a full refund.

Our directions for use of this product are based on tests believed to be reliable. However, it is impossible to eliminate all risk associated with the use of this product. Crop injury, inadequate performance, or other unintended consequences may result due to soil or weather conditions, off target movement, presence of other materials, method of use or application, and other factors, all of which are beyond the control of Gowan Company. To the extent consistent with applicable law, all such risks are assumed by the Buyer and User.

Gowan Company warrants that this product conforms to the specifications on the label when used in strict conformance with Direction for Use, subject to the above stated risk limitations. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, GOWAN COMPANY MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY**

TO THE EXTENT CONSISTENT WITH APPLICATBLE LAW, GOWAN COMPANY'S EXCLUSIVE LIABILITY FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, OR ANY OTHER LEGAL THEORY IS STRICTLY LIMITED TO THE PURCHASE PRICE PAID OR REPLACEMENT OF PRODUCT, AT GOWAN COMPANY'S SOLE DISCRETION.

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EPA Text Pending: Betasan 12.5G (resent to EPA 3-9-11)

