

**SLEEVE**

# **BETASAN<sup>®</sup> 4.8-E**

**EMULSIFIABLE LIQUID**

Selective Herbicide for Pre-Emergence Control of Crabgrass and Annual Bluegrass Turf

**GUARANTEE:** Bensulide 480 g/L



**WARNING**

**POISON**

**READ THE LABEL AND ATTACHED BROCHURE BEFORE USING**

**COMMERCIAL**

**Net Contents: 10 Litres**

United Agri Products – Canada  
789 Donnybrook Drive  
R.R. #2  
Dorchester, Ontario  
N0L 1G5  
(519)268-8001

REGISTRATION NO. 9057  
PEST CONTROL PRODUCTS ACT

Gowan Company LLC.  
370 S. Main Street  
P.O. Box 5569  
Yuma, Arizona 85366-5569

**Gowan<sup>®</sup>**  
**CANADA**

## PRECAUTIONS

### KEEP OUT OF THE REACH OF CHILDREN.

HARMFUL IF SWALLOWED. Avoid contact with skin and eyes. Avoid breathing spray mist. Wash thoroughly after use. In case of accident, call a physician or Poison Control Center IMMEDIATELY. Do not contaminate food or feed.

## FIRST AID

If a known exposure occurs or is suspected, IMMEDIATELY start the procedures given below. If further treatment is required, contact a Poison Control Centre, a physician, or the nearest hospital IMMEDIATELY.

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 physician that the compound is a cholinesterase inhibitor and follow the physician's advice.**

**IF SWALLOWED:** Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give **any** liquid to the person. 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 centre 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 centre or doctor for further treatment advice.

**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 centre or doctor for treatment advice.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

**FOR MEDICAL EMERGENCIES INVOLVING THIS PRODUCT, CALL TOLL FREE 1-888-478-0798.**

## GENERAL LIMITATIONS:

The product should be used only for recommended purposes and at recommended rates. Do not exceed the label rates.

Do not store near seeds or fertilizer.

Apply when there is little or no wind to avoid drift. Do not get spray on desirable plants.

Do not apply peat moss to lawn before treating with BETASAN 4.8-E EMULSIFIABLE LIQUID.

Do not allow children or pets on treated lawns until BETASAN 4.8-E EMULSIFIABLE LIQUID has been watered into the soil and grass is completely dry.

Use on mineral soils only.

DO NOT APPLY BY AIRCRAFT.

Do not contaminate irrigation water or water used for domestic purposes.

Do not pour near heat or open flames.

Uses on turfgrass are restricted to residential lawns and tees and putting greens of golf courses only.

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue l

evels in the U.S., visit CropLife Canada's web site at: [www.croplife.ca](http://www.croplife.ca)

## TOXICOLOGICAL INFORMATION

Bensulide is a cholinesterase inhibitor. Typical symptoms of overexposure to cholinesterase inhibitors include headache, nausea, dizziness, sweating, salivation and runny nose and eyes. This may progress to muscle twitching, weakness, tremor, in coordination, vomiting, abdominal cramps and diarrhea in more serious poisonings. A life-threatening poisoning is signified by loss of consciousness, incontinence, convulsions and respiratory depression with a secondary cardiovascular component. Treat symptomatically. If exposed, plasma and red blood cell cholinesterase tests may indicate degree of exposure (baseline data are useful). Atropine, only by injection, is the preferable antidote. Oximes, such as Pralidoxime Chloride, may be therapeutic if used early; however, use only in conjunction with atropine. In cases of severe acute poisoning, use antidotes immediately after establishing an open airway and respiration. With oral exposure, the decision of whether to induce vomiting or not should be made by an attending physician. **NOTE: Product contains a petroleum distillate solvent.**

## PROTECTIVE CLOTHING AND EQUIPMENT:

Persons handling this product must wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes. Rinse gloves before removal. Coveralls over long sleeves and long pants must also be worn when mixing, loading and applying to turf (residential lawns or golf courses).

## ENVIRONMENTAL HAZARDS

Bensulide is toxic to bees exposed to direct treatment. Do not apply when bees are present in the area to be treated.

Toxic to fish and other aquatic organisms. Do not contaminate any body of water by direct application, cleaning of equipment or disposal of wastes and containers. This product contains a petroleum distillate which is moderately to highly toxic to aquatic organisms.

**STORAGE**

Do not store near seeds or fertilizer. Do not store near heat or open flames. Protect from temperatures below 6°C. Product crystallizes at lower temperatures. Warm or store at higher temperatures, and mix to redissolve crystals and assure uniformity before use.

**DISPOSAL**

Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple-or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of container in accordance with provincial requirements. For information on the disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean up of spills.

**NOTICE TO USER**

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of the product.

Betasan<sup>®</sup> is a registered trademark of Syngenta Crop Protection Inc. being used under license by Gowan Company LLC.

**BROCHURE**

# **BETASAN<sup>®</sup> 4.8-E**

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## **DIRECTIONS FOR USE**

### **GENERAL USE PRECAUTIONS**

- BETASAN 4.8-E EMULSIFIABLE LIQUID should be used only for recommended uses at recommended rates.
- Apply when there is little or no wind to avoid drift. Do not get spray on desirable plants.
- Do not apply peat moss to lawn before treating with BETASAN 4.8-E EMULSIFIABLE LIQUID.
- Do not allow children or pets on treated lawns until BETASAN 4.8-E EMULSIFIABLE LIQUID has been watered into the soil and grass is completely dry.
- BETASAN 4.8-E EMULSIFIABLE LIQUID is recommended for use on mineral soils only.
- Do not use, pour or spill near heat or open flames.

### **APPLICATION DIRECTIONS**

Application of BETASAN 4.8-E EMULSIFIABLE LIQUID must precede emergence of weeds from the soil. Crabgrass will emerge 4 to 6 weeks before it is visible above lawn sod. If weeds are visible above the soil, it is too late to apply BETASAN 4.8-E EMULSIFIABLE LIQUID. Remove leaves, dead tall grass and other debris before applying BETASAN 4.8-E EMULSIFIABLE LIQUID to turf areas.

NOTE: Betasan does not control established weeds.

### **TIMING OF APPLICATION – GENERAL COMMENTS**

BETASAN 4.8-E EMULSIFIABLE LIQUID should be applied only to well-established grass lawns.

For control of crabgrass, apply BETASAN 4.8-E EMULSIFIABLE LIQUID at the recommended rate (see APPLICATION RATES) any time 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 crabgrass emergence (see APPLICATION DIRECTIONS).

For control of annual bluegrass and other annual weeds, apply BETASAN 4.8-E EMULSIFIABLE LIQUID at the recommended rate (see APPLICATION RATES) before the weeds emerge from the soil.

Consult local agricultural or garden authorities for additional information, as the timing and rate of application needed, will vary with local conditions. BETASAN 4.8-E EMULSIFIABLE LIQUID should be applied with spray equipment that will provide uniform application such as knapsack sprayer, hose proportioner, or pressure sprayer. Sprinkle with water for 10 to 15 minutes after application to wash BETASAN 4.8-E EMULSIFIABLE LIQUID off the grass and down into the soil where weed seeds are located.

### **APPLICATION RATES**

**Crabgrass:** Apply 230 mL of BETASAN 4.8-E EMULSIFIABLE LIQUID in 25 to 50 L of water uniformly on the area of 100 m<sup>2</sup>.

**Annual Bluegrass:** Apply 300 mL of BETASAN 4.8-E EMULSIFIABLE LIQUID in 25 to 50 L of water uniformly on an area of 100 m<sup>2</sup>.

### **RESEEDING**

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

Do not reseed within one year after application. Renovate the area to be re-seeded by raking thoroughly to scarify the soil surface. Where practical, mix peat in with the soil to provide an optimum seed bed. If reseeding must be done sooner than one year after treatment, remove top 5 centimeters of soil and replace with clean, untreated soil.

### **PRECAUTIONS**

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Do not apply peat moss to lawn before treating with BETASAN 4.8-E EMULSIFIABLE LIQUID.

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Use on mineral soils only.

**DO NOT APPLY BY AIRCRAFT.**

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**BUFFER ZONE INFORMATION**

Ground Boom Application:

Avoid overspray or drift to sensitive aquatic habitats. An appropriate buffer zone from one of tables 1 through 3 is required between the downwind point of direct application and the closest edge of sensitive aquatic habitats including sloughs, coulees, ponds, prairie potholes, lakes, rivers, streams, reservoirs and wetlands that are situated on the periphery of the treated area. Also included are natural bodies of water that flow through and exit treated areas (e.g., golf courses). Do not contaminate any of these habitats when cleaning and rinsing spray equipment or containers. Any self-contained bodies of water within the golf course property do not require buffer zones.

Do not apply during periods of dead calm or when winds are gusty.

Buffer zones for ground applications are dependent on the application rate specific to the crop and the depth of the aquatic ecosystem to be protected. It is the applicator's responsibility to determine the maximum depth of the aquatic ecosystem.

**Table 1. Buffer zones (in metres) for the protection of aquatic habitats of various water depths for ground application of bensulide in**

Crop	Ground buffer zone (m)		
	Water depth <1 m	Water depth 1-3 m	Water depth >3 m
Turf	42	31	21

**Table 2. Buffer zones (in metres) for the protection of aquatic habitats of various water depths for ground application of bensulide in different crops with the use of shrouds**

Crop	Ground buffer zone (m)		
	Water depth <1 m	Water depth 1-3 m	Water depth >3 m
Turf	13	9	6

**Table 3. Buffer zones (in metres) for the protection of aquatic habitats of various water depths for ground application of bensulide in different crops with the use of cones**

Crop	Ground buffer zone (m)		
	Water depth <1 m	Water depth 1-3 m	Water depth >3 m
Turf	29	22	15

SITES AND PESTS	RATES (AS ACTIVE INGREDIENT) AND DIRECTIONS
<b>TURF</b>	
<b>GOLF COURSES</b> (tees and putting greens)	<p>For use only on tees and putting greens of golf courses. Do not use on putting greens composed of 50% or more annual bluegrass.</p> <p>Apply only to well established turfgrass. On newly planted areas, wait until the grass has been mowed at least twice and has achieved good coverage. After application, avoid any severe aerating or raking that might disturb the surface and break the chemical barrier. Delay seeding, sprigging or sodding for 1 year after application.</p> <p>Application must precede emergence of weeds from soil. This product does not control established weeds. Remove leaves, dead tall grass and other debris before applying.</p> <p>Do not apply more than once yearly.</p> <p>This product will not be effective unless it is watered in for 10-15 minutes after application. For safety reasons, water this product in as soon as possible following application and do not allow children or pets on treated areas until dry following the watering.</p> <p>This product may only be broadcast applied by ground boom sprayer. Apply by low pressure handwand for spot treatment only. Do not apply with a low pressure turf gun or backpack sprayer.</p> <p><b>ANNUAL BLUEGRASS</b> Apply in late summer or early fall, before germination. 144 g a.i. in 25-50 L/100 m<sup>2</sup></p> <p><b>CRABGRASS (HAIRY, SMOOTH)</b> Apply any time from fall (September or October) through early spring, prior to crabgrass emergence. 110 g a.i. in 25-50L/100 m<sup>2</sup></p>
<b>RESIDENTIAL LAWNS</b>	<p>For use on residential lawns. Do not use on turfgrass in parks, recreational areas or other public sites (with the exception of golf courses, see above).</p> <p>Apply only to well established turfgrass. On newly planted areas, wait until the grass has been mowed at least twice and has achieved good coverage. After application, avoid any severe aerating or raking that might disturb the surface and break the chemical barrier. Delay seeding, sprigging or sodding for 1 year after application.</p> <p>Application must precede emergence of weeds from soil. This product does not control established weeds. Remove leaves, dead tall grass and other debris before applying.</p> <p>Do not apply more than once yearly.</p> <p>This product will not be effective unless it is watered in for 10-15 minutes after application. For safety reasons, water this product in as soon as possible following application and do not allow children or pets on treated areas until dry following the watering.</p> <p>This product may be applied by ground boom, low pressure turfgun or handwand. Do not apply with a backpack sprayer.</p> <p><b>ANNUAL BLUEGRASS</b> Apply in late summer or early fall, before germination. 144 g a.i. in 25-50 L/100 m<sup>2</sup></p> <p><b>CRABGRASS (HAIRY, SMOOTH)</b> Apply any time from fall (September or October) through early spring, prior to crabgrass emergence. 110 g a.i. in 25-50L/100 m<sup>2</sup></p>

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#### DISPOSAL

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