

GROUP 8 HERBICIDE



SLEEVE

PREFAR[®] 4.8-E

EMULSIFIABLE LIQUID

A Selective Herbicide for Use on Cucumbers

GUARANTEE: Bensulide 480 g/L



WARNING

POISON

READ THE LABEL AND ATTACHED BROCHURE BEFORE USING

COMMERCIAL

Net Contents: 10 Litres

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

REGISTRATION NO. 14113
PEST CONTROL PRODUCTS ACT

Gowan[®]
CANADA

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

PRECAUTIONS

KEEP OUT OF REACH THE 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 Centre. Do not contaminate food or feed.

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.

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.

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.

Do not apply in combination with fluid fertilizers.

Do not apply PREFAR 4.8-E Emulsifiable Liquid more often than once every 12 months. To avoid crop injury, rotate only to other cucurbits, peppers, cole crops, carrots, lettuce or tomatoes.

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.

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 levels in the U.S., visit CropLife Canada's web site at: 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, incoordination, 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: This product contains a petroleum distillate solvent.**

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 the container in accordance with provincial requirements.

For information on 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.

PRODUCT INFORMATION

PREFAR 4.8-E Emulsifiable Liquid is a selective herbicide which is applied preplant and mixed (incorporated) into the soil. PREFAR 4.8-E Emulsifiable Liquid controls weeds as their seeds germinate by interfering with normal germination and seedling development.

NOTICE TO USER

This pest control product is to be used only in accordance with the directions on this 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.

Prefar® is a registered trademark of Syngenta Crop Protection Inc. being used under license by Gowan Company LLC.

GROUP	8	HERBICIDE
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BROCHURE

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Yuma, Arizona 85366-5569

DIRECTIONS FOR USE

WEEDS CONTROLLED

Annual Grasses

Barnyard Grass	(<i>Echinochloa crusgalli</i>)
Crabgrass	(<i>Digitaria</i> spp.)
Foxtail	(<i>Setaria</i> spp.)

PREFAR 4.8-E Emulsifiable Liquid does not control established weeds.

USE PRECAUTIONS

- PREFAR 4.8-E Emulsifiable Liquid should be used only for recommended purposes and at recommended rates. (DO NOT OVERDOSE.)
- Do not contaminate food or feed.
- Do not apply in combination with fluid fertilizers.
- Use on mineral soils only.
- Do not contaminate irrigation water or water used for domestic purposes.
- Do not apply PREFAR 4.8-E Emulsifiable Liquid more often than once every 12 months. To avoid crop injury, rotate only to the other cucurbits, peppers, cole crops, carrots, lettuce or tomatoes.
- Apply this product only as specified on this label.

Si vous prévoyez utiliser le produit antiparasitaire sur une denrée pouvant être exportée aux États-Unis et si vous avez besoin de renseignements sur les concentrations de résidus acceptables aux États-Unis, consultez le site Internet de CropLife Canada à www.croplife.ca.

RESISTANCE MANAGEMENT RECOMMENDATIONS: For resistance management, PREFAR 4.8-E Emulsifiable Liquid is a Group 8 herbicide. Any weed population contain or develop plants naturally resistant to PREFAR 4.8-E Emulsifiable Liquid and other Group 8 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Other resistance mechanisms that are not linked to site of action, but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance:

- Where possible, rotate the use of PREFAR 4.8-E Emulsifiable Liquid or other Group 8 herbicides with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group when such use is permitted.
- Herbicides use should be based on an IPM program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical), cultural, biological and other chemical control practices.
- Monitor treated weed populations for resistance development.
- Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment and planting clean seed.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information and to report suspected resistance, contact Gowan Company at 1-800-883-1844 or at www.gowanco.com.

SOIL PREPARATION

Prepare the soil according to good agricultural practice. PREFAR 4.8-E Emulsifiable Liquid does not control emerged weeds and all weed growth and crop stubble must be thoroughly worked into the soil prior to application.

APPLICATION AND SOIL INCORPORATION

Spray equipment should be carefully calibrated before use and checked frequently during application to be sure nozzles are free from clogging and are delivering a uniform spray pattern. Apply uniformly the recommended rate of PREFAR 4.8-E Emulsifiable Liquid in 100 to 500 litres of water per hectare.

PRE-PLANT APPLICATION

Apply to well-worked soil that is dry enough to permit thorough incorporation. Incorporate to a depth of 2.5 to 5 centimetres before planting. Use power driven rotary cultivators or other equipment which will result in satisfactory incorporation.

APPLICATION RATES

All rates are given on a broadcast basis. Reduce rate proportionately for band treatment.

Cucumbers: Apply pre-plant, 12 to 14 litres PREFAR 4.8-E Emulsifiable Liquid per broadcast hectare to flat-planted or bedded cucumbers. Follow the directions for application and soil application given on this label.

PREFAR 4.8-E Emulsifiable Liquid/ALANAP*

TANK MIX DIRECTIONS

A tank mix combination of PREFAR 4.8-E Emulsifiable Liquid and ALANAP can be mixed (incorporated) into the soil before planting for weed control in cucumbers. This combination will control a broader spectrum of weeds than will either material used alone.

IMPORTANT: Follow all general directions for use and the use precautions that appear on the ALANAP label and elsewhere on this label.

WEEDS CONTROLLED BY PREFAR 4.8-E Emulsifiable Liquid/ALANAP COMBINATIONS

Annual Grasses

Barnyard Grass	(<i>Echinochloa crusgalli</i>)
Crabgrass	(<i>Digitaria</i> spp.)
Foxtail	(<i>Setaria</i> spp.)

Annual Broadleaf Weeds

Chickweed	(<i>Stellaria media</i>)
Lambsquarters	(<i>Chenopodium album</i>)
Mustards	(<i>Brassica</i> spp.)
Redroot Pigweed	(<i>Amaranthus retroflexus</i>)
Purslane	(<i>Portulaca oleracea</i>)
Ragweed	(<i>Ambrosia</i> spp.)
Shepherdspurse	(<i>Capsella bursa-pastoris</i>)

SOIL PREPARATION

Prepare the soil according to good agricultural practice. All weed growth and crop stubble must be thoroughly worked into the soil.

TANK MIXING DIRECTIONS

Combine PREFAR 4.8-E Emulsifiable Liquid and ALANAP in the spray tank in the recommended dosage proportions using 100 to 400 litres of water per hectare of area to be treated.

Spray equipment should be carefully calibrated before use and checked frequently during application to be sure nozzles are free from clogging and are delivering a uniform spray pattern.

PRE-PLANT APPLICATION RATE AND SOIL INCORPORATION

Apply 9.5 to 14 litres of PREFAR 4.8-E Emulsifiable Liquid per hectare plus 9.5 to 19 litres of ALANAP per hectare in sufficient water (100 to 400 litres per hectare) to provide thorough coverage. Incorporate lightly (1 to 3 centimetres) into the soil using suitable equipment just prior to planting. Use lower rates in light (sandy) soils and higher rates in heavier (clay) soils. Reduce the rate proportionately for band applications.

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 different crops without the use of shrouds or cones

Crop	Ground buffer zone (m)		
	Water depth <1 m	Water depth 1-3 m	Water depth >3 m
Cucumbers	34	23	13

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
Cucumbers	10	7	4

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
Cucumbers	24	16	9

SITES AND PESTS	RATES (AS ACTIVE INGREDIENT) AND DIRECTIONS
FIELD CROPS	
CUCUMBER (field)	<p>Do not apply in combination with fluid fertilizers. Use on mineral soils only. Do not apply more often than once every 12 months. A plantback interval of 120 days must be observed between application and replanting or planting of rotational crops. Soil must be tilled to a depth of 10 cm prior to replanting to rotational crops. To avoid crop injury, rotate only to other cucurbits, peppers, cole crops, carrots, lettuce or tomatoes.</p> <p>BARNYARD GRASS, CRABGRASS, FOXTAIL 5760-6720 g a.i. in 100-500 L/ha. Apply as a preplant application. Apply to well-worked soil that is dry enough to permit thorough incorporation. Incorporate to the depth of 2.5-5 cm before planting. Rates of application are presented on a broadcast basis; reduce rate proportionally for band treatment.</p> <p>TANK-MIX WITH ALANAP (NAPTALAM) FOR THE CONTROL OF: BARNYARD GRASS, CRABGRASS, FOXTAIL, CHICKWEED, LAMB'S QUARTERS, MUSTARDS, REDROOT PIGWEED, PURSLANE, RAGWEED, SHEPHERD'S PURSE Apply as a preplant application. Apply 4560-6720 g a.i./ha of bensulide as a tank-mix with 2280-4560 g a.i./ha of naptalam in sufficient water (10W00 Lka) to provide sufficient coverage. Incorporate lightly (1-3 m) into the soil prior to planting. Use the lower application rates in light (sandy) soil and higher rates in heavier (clay) soil. Rates of application are presented on a broadcast basis; reduce rate proportionally for band treatment.</p> <p>Follow all use directions and precautions that appear on the labels for the bensulide and naptalam tank-mix products. Where the labels for the two tank-mix partners have different precautions or limitations, the most restrictive precautions and limitations must be followed.</p>

PRECAUTIONS

KEEP OUT OF THE REACH OF CHILDREN

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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.

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Do not apply in combination with fluid fertilizers.

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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.

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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.

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

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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.
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*ALANAP is a registered trademark of Uniroyal Chemical

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