

2217-867

12/15/2004

55A3-2/19

Please read instructions on reverse before completing form.

Form Approved. OMB No. 2070-0060. Approval Expires 2-28-96



United States
Environmental Protection Agency
Washington, DC 20460

- Registration
- Amendment
- Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number 2217-867	2. EPA Product Manager Joanne I. Miller	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) EH-1406 Herbicide	PM# Product Manager—Team 23	
5. Name and Address of Applicant (Include ZIP Code) PBI/Gordon Corporation Post Office Box 014090 Kansas City, Missouri 64101 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

Section - II

<input type="checkbox"/> Amendment - Explain below.	<input checked="" type="checkbox"/> Final printed labels in response to Agency letter dated <u>October 29, 2004</u>
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

NOTIFICATION
DEC 15 2004

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

NOTIFICATION per Pesticide Registration Notice (PRN) 98-10:

- Final printed label in response to an Agency Letter dated October 29, 2004:** The draft labeling of EH-1406 Herbicide (EPA Reg. No. 2217-867) was EPA-approved on October 29, 2004. As requested, two (2) copies of the PDF file (printer's proof) intended for this product are enclosed *Alternate*
- Request for brand name:** We ask to add the following brand name: *SURGE® Broadleaf Herbicide for Turf.*

Certification: This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or Confidential Statement of Formula of this product. I understand that it is a violation of 18 U.S.C Sec. 1001 to willfully make any false statement to the EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under Section 12 and 14 of FIFRA.

Section - III

1. Material This Product Will Be Packaged In:			
Child-Resistant Packaging <input checked="" type="checkbox"/> Yes* <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2. Type of Container <input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____
* Certification must be submitted		If "Yes" Unit Packaging wgt. No. per container	If "Yes" Package wgt. No. per container
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input checked="" type="checkbox"/> Container		4. Size(s) Retail Container 1.0 quart, 1 gallon, 2.5 gallons.	5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input checked="" type="checkbox"/> On Labeling accompanying product
6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph <input type="checkbox"/> Other _____ <input checked="" type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled			

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name James L. Kunstman, Ph.D.	Title Director of Regulatory Services	Telephone No. (Include Area Code) 816-460-6292
2. Signature 		6. Date Application Received (\$Stamped)
3. Title Director of Regulatory Services		
4. Typed Name James L. Kunstman, Ph.D.		
5. Date November 18, 2004		

Certification
I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

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NOTIFICATION

DEC 15 2004



SURGE®

BROADLEAF HERBICIDE FOR TURF

ACTIVE INGREDIENTS:
Sulfentrazone
2,4-Dichlorophenoxyacetic acid
Mecoprop-P
Dicamba
INERT INGREDIENTS

0.67%
18.79%
6.80%
3.02%
70.72%

TOTAL 100.00%



CONTAINS:

chloro-5-[4-(difluoromethyl)-4,5-dihydro-3-methyl-5-oxo-1H-pyridin-2-yl]phenylmethanesulfonamide per gallon or 0.67%.
2,4-dichlorophenoxyacetic acid equivalent per gallon or 15.66%.
(2-methyl-4-chlorophenoxy) propionic acid equivalent per gallon or 5.12%.
3,6-dichloro-2-methoxybenzoic acid equivalent per gallon or 2.52%.

See attached booklet for a complete list of active ingredients and their uses.

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EPA
EPA 6

**KEEP OUT OF REACH OF CHILDREN
PELIGRO - PELIGRO**

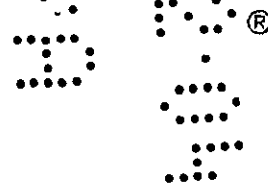
Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail).

From the makers of
TRIMEC Herbicide

See attached booklet for a complete list of active ingredients and their uses.



**NET CONTENTS:
ONE U.S. GALLON**





SURGE®

BROADLEAF HERBICIDE FOR TURF

Active Ingredients
Surge
2.5
Methyl
Dicamba
INERT

THIS PRODUCT CONTAINS
0.06 lb. N-1

1-(2-chlorophenoxy)acetic acid
2-(2-methyl-4-chlorophenoxy) propionic acid equivalent
chloro-o-anisic acid equivalent per gallon or 2.52%
by AOAC Method.

Surge	67%
Methyl Dicamba	9%
Inert	24%
	3.02%
	70.72%
TOTAL	100.00%



**KEEP OUT OF REACH OF CHILDREN
DANGER - PELIGRO**

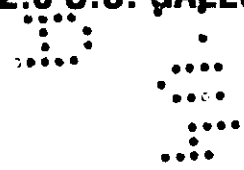
Read the label carefully. If you do not understand the label, find someone who can explain it to you in detail.

See attached booklet for First Aid.

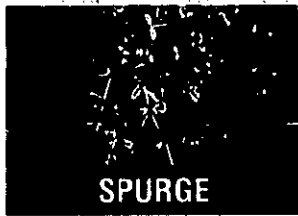


From the makers of
TRIMEC Herbicide

NET CONTENTS: 2.5 U.S. GALLONS



®



SPURGE



KNOTWEED



OXALIS*



CLOVER



DANDELION



YELLOW NUTSEGE**

*Yellow woodsorrel
**Suppression only



BROADLEAF HERBICIDE FOR TURF

Warm-weather weed control - FAST!

For use on: Bluegrass, Fescues, Perennial Ryegrass, Bentgrass, Bermudagrass, Zoysiagrass, Bahiagrass and Buffalograss

- **Fast visual response**
- **Economical - lower cost water-based formulation**
- **Easy cleanup**
- **Warm-weather weed control option**
- **Suitable for applications up to 90°F**
- **Foliar absorption**
- **Reduce call backs**
- **Low odor**
- **Designed for residential and commercial turf applications and many other sites**

655/11-2004 AP102904
EPA REG. NO. 2217-867
EPA EST. NO. 2217-KS-1

Manufactured By



An Employee-Owned Company
1217 West 12th Street
Kansas City, Missouri 64101

www.pbigordon.com



SURGE

BROADLEAF HERBICIDE FOR TURF



For use by individuals/firms licensed or registered by the State to apply pesticide products. States may have more restrictive requirements regarding qualifications of persons using this product. Consult the pest control regulatory agency of your State prior to use of this product.

ACTIVE INGREDIENTS:

Sulfentrazone.....	0.67%
2,4-D, dimethylamine salt	18.79%
Mecoprop-p, dimethylamine salt	6.80%
Dicamba, dimethylamine salt.....	3.02%

INERT INGREDIENTS:..... 70.72%
TOTAL 100.00%

THIS PRODUCT CONTAINS:

- 0.06 lb. N-[2,4-dichloro-5-[4-(difluoromethyl)-4,5-dihydro-3-methyl-5-oxo-1H-1,2,4-triazol-1-yl]phenyl]methanesulfonamide per gallon or 0.67%.
 - 1.40 lbs. 2,4-dichlorophenoxyacetic acid equivalent per gallon or 15.66%.
 - 0.50 lb. (+)-(R)-2-(2-methyl-4-chlorophenoxy) propionic acid equivalent per gallon or 5.62%.
 - 0.22 lb. 3,6-dichloro-o-anisic acid equivalent per gallon or 2.52%.
- Isomer Specific by AOAC Method.

KEEP OUT OF REACH OF CHILDREN DANGER – PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail).

See below for additional Precautionary Statements and First Aid.



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

PRECAUTIONARY STATEMENTS

Hazards to Humans & Domestic Animals

DANGER: Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Harmful if absorbed through skin or if swallowed. Avoid contact with skin, eyes or clothing.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks
- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. After each day of use, clothing or PPE must not be reused until it has been cleaned.

Engineering Control Statements:

Containers over 1 gallon and less than 5 gallons: Mixers and loaders who do not use a mechanical system (probe and pump) to transfer the contents of this container must wear coveralls or a chemical-resistant apron in addition to the other required PPE.

Containers of 5 or more gallons: Do not open-pour product from this container. A mechanical system (such as a probe and pump or spigot) must be used for transferring the contents of this container. If the contents of a non-refillable pesticide container are emptied, the probe must be rinsed before removal. If the mechanical system is used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d) (4)], the handler PPE requirements may be reduced or modified as specified in the WPS.

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.

User Safety Recommendations:

Users should:

- Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- 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.

FIRST AID

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 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 swallowed:	<ul style="list-style-type: none"> • Call a 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 a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
<p>Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-877-800-5556 for emergency medical treatment information.</p>	
<p>NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.</p>	

ENVIRONMENTAL HAZARDS:

This product is toxic to aquatic invertebrates. Drift or runoff may adversely affect aquatic invertebrates and nontarget plants. 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.

When cleaning equipment, do not pour the washwater on the ground; spray or drain over a large area away from wells and other water sources. Most cases of groundwater contamination involving phenoxy herbicides such as 2,4-D and MCPP-p have been associated with mixing/loading and disposal sites. Caution should be exercised when handling 2,4-D and MCPP-p pesticides at such sites to prevent contamination of groundwater supplies. Use of closed systems for mixing or transferring this pesticide will reduce the probability of spills.

DIRECTIONS FOR USE

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170.

(cont. on next column)

AGRICULTURAL USE REQUIREMENTS (cont.)

This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 48 hours.

For early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, wear:

- Coveralls
- Waterproof gloves
- Shoes plus socks
- Protective eyewear.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Reentry Statement: Do not allow people (other than applicator) or pets on treatment area during application. Do not enter treatment area until spray has dried.

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PRODUCT DESCRIPTION

SURGE® Broadleaf Herbicide For Turf contains four active ingredients including sulfentrazone that broaden the spectrum of weed control. These combined herbicides provide limited residual activity at recommended use rates. Sulfentrazone is in the aryl triazolinone family and inhibits protoporphyrinogen oxidase (Protox), a pivotal enzyme in chlorophyll production. Without this key enzyme, a build-up of peroxide-like compounds occur, thus causing the plant cell membranes of weeds to rupture.

SURGE® Broadleaf Herbicide For Turf offers these advantages:

- Excellent postemergent activity with proven performance for broadleaf weed control in turfgrass.
- This product exhibits improved cool-weather performance compared to standard "3-way amines".
- High selectivity (turfgrass safety) in established cool-season turfgrass and warm-season turfgrass.
- Sulfentrazone combinations provide rapid and effective weed control for common and troublesome (tough) weed species in turfgrass, including: dandelion, spurge, white clover and dollarweed (pennywort).
- The speed of action (rate of weed phytotoxicity) and the early weed symptoms are features of sulfentrazone combinations compared to standard "3-way amines". Often, the weed injury symptoms can be noticed within hours of the application and plant death can occur within 10-14 days.
- This product is generally rainfast in as little as 6 hours.

SPRAY PREPARATION AND TANK MIXTURES

In certain applications, liquid fertilizer may replace part of the water as a diluent.

Water as diluent:

Add one-half the required amount of water to the spray tank, then add SURGE® Broadleaf Herbicide For Turf slowly with agitation, and complete filling the tank with water. Mix thoroughly and continue agitation while spraying.

When this product is left standing for extended periods of time, re-agitate to assure uniformity of the spray mixture.

Do not use tank additives that alter the pH of the spray solution below pH 5 or above pH 8. Buffer the spray solution to alter the pH range as appropriate.

Liquid fertilizers as diluents:

ALWAYS PREMIX SURGE® Broadleaf Herbicide For Turf WITH WATER BEFORE ADDING TO FLUID FERTILIZERS. For liquid nitrogen solutions such as U.A.N. or urea solutions, use a premix of 1 part of this product with 4 parts of water or use a premix with a 1:4 ratio of product to water. For other fluid fertilizers such as suspensions, use a premix of 1 part of this product with 50 to 60 parts of water.

Use suitable sources and rates of fertilizer based upon local recommendations. Refer to the mixing directions on the labels of the liquid fertilizers. Always perform a jar test for compatibility before large scale mixing.

The jar test can be conducted by mixing all components in a small container in proportionate quantities. If the mixture separates after standing and can be mixed readily by shaking, then the mixture can be used and applied with spray equipment providing continuous agitation. If large flakes, sludge, gels or other precipitates form, or if a separate oily layer or oil globules appear, then the herbicide and the liquid fertilizer should not be prepared as a tank mixture.

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Adjuvants and spray additives:

Adjuvants (such as surfactants, spreaders, spreader-stickers, spray thickeners, foaming agents, activators, detergents, and drift reducing agents) combined with this product can damage the leaf tissue of turfgrass. If any discoloration or cosmetic effects are objectionable or would be unacceptable, then adjuvant(s) combined with SURGE® Broadleaf Herbicide For Turf would not be recommended. Do not use adjuvants and spray additive tank-mix combinations, unless your experience indicates that the tank mixture will not result in turf injury.

GROUND EQUIPMENT

Spray distribution: The accuracy and uniformity of the herbicide distribution is the sole responsibility of the applicator. Power sprayers fitted with a boom or spray wand/gun may be used for broadcast applications and spot treatments. Boom sprayers equipped with appropriate flat fan nozzles, tips, and screens are suitable for broadcast applications. For best spray distribution and coverage, select a spray volume and delivery system that will ensure accurate and uniform coverage.

Spray volumes of 20-220 gallons per acre with spray pressures adjusted to between 20-40 psi. Use higher spray volumes for dense weed populations (up to 220 gallons per acre or 5 gallons per 1,000 square feet).

- Calibration and proper application are essential when using this product.
- Over-application or rates above those specified on this label can cause turf injury.
- Hand-held technique: Wands fitted with flat fan nozzle tips may be used with the appropriate technique. Flat fan nozzles should not be waved in a back-and-forth motion, or in a side-to-side motion, or in a swinging arm

motion. Instead, the nozzle should be held stationary at the proper height. Side-to-side motion results in uneven coverage.

Hand-operated sprayers including backpack sprayers, compression sprayers, and knapsack sprayers are appropriate for small turfgrass areas when power equipment is unavailable, uneconomical, or impractical.

This product may cause injury to susceptible/non-target plants at the use site by contacting the foliage, stems, or roots. To prevent injury to susceptible crops and other desirable broadleaf plants including but not limited to cotton, legumes, tobacco, tomatoes, garden/vegetable crops, and ornamentals (flowers, trees, and shrubs) avoid contact with the spray solution, spray droplets, and spray mist (fine droplets). Applications are recommended only when there is no potential hazard from spray drift during dormant and active growth periods. Do not apply when conditions are conducive to spray drift from the use site to untreated areas.

After using this product, clean sprayer with soap or detergent and water, or an approved spray tank cleaner and rinse thoroughly before applying other pesticides.

WHERE TO USE

This product provides selective broadleaf control in warm-season and cool-season turfgrass in four (4) use sites.

- **Institutional sites** are defined as turf areas around properties or facilities providing a service to public or private organizations including, but not limited to hospitals, nursing homes, schools, museums, libraries, sport facilities, golf courses (fairways, aprons, and roughs), and office buildings.
- **Ornamental sites** include turfgrass established around residences, parks, streets, retail

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outlets, cemeteries, industrial and institutional buildings, recreation areas, fairgrounds, areas adjacent to athletic fields and paved areas.

- **Residential/domestic sites** are defined as areas associated with the household or home life including, but not limited to apartment complexes, condominiums, and patient care areas of nursing homes, mental institutions, hospitals, or convalescent homes.
- **Agricultural site:** Commercial sod production.

Prohibitions of Sites:

- Do not apply to any body of water such as lakes, streams, rivers, ponds, reservoirs, or estuaries (salt water bays). Do not apply to any shorelines (non-cropland sites adjacent to the edges of a body of water) for lakes, streams, rivers, ponds, reservoirs, or estuaries (salt water bays).
- Do not apply to wetlands (swamps, bogs, potholes, or marshes).
- Do not apply to agricultural irrigation water or on agricultural irrigation ditchbanks and canals.
- Do not apply to agricultural drainage water or on agricultural ditchbanks.

Turfgrass tolerance:

- The turfgrass tolerance to this product may vary and temporary turfgrass yellowing may occur on certain varieties of hybrid bermudagrass. Adverse environmental conditions may reduce the selectivity on the turfgrass. Do not apply this product to stressed turf.
- Certain spray tank additives (adjuvants, wetting agents, surfactants), liquid fertilizers, and tank mixtures containing emulsifiable concentrates may reduce the selectivity on the turfgrass. Do not use adjuvants and spray additive tank-mix combinations, unless your experience indicates that the tank mixture will not result in turf injury.

Prohibitions:

- Do not apply this product to bentgrass greens or tees, carpetgrass, dichondra, legumes, and lawns where desirable clovers are present.
- Do not broadcast apply this product when temperatures are above 90°F, some injury may be expected with spot treatments when air temperatures exceed 90°F.
- To avoid turf injury, use only on turfgrass that is reasonably free of stress from diseases, insects, excess heat or cold, drought or excess rainfall/irrigation, shaded areas, low soil pH, nematodes, improper mowing or improper applications of fertilizer and pesticides. Injury can occur if this product is applied under any of these or other stress conditions. Under any of these stress conditions, any turf damage caused by the use of this product is beyond the control of PBI/Gordon Corporation and all risk is assumed by the buyer and/or user.
- **Not for sale or use in the States of California or New York** unless accompanied by supplemental labeling.

SPRAY DRIFT MANAGEMENT

Do not apply under circumstances where possible drift to unprotected persons or to food, forage or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption can occur.

Use the largest droplet size consistent with acceptable efficacy. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible and by avoiding excessive spray boom pressure. For ground boom and aerial applications, use medium or coarser spray nozzles according to ASAE 572 definition for standard nozzles or a volume mean diameter (VMD) of 300 microns or greater for spinning atomizer nozzles.

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Make aerial or ground applications when the wind velocity favors on-target product deposition. Apply only when the wind speed is less than or equal to 10 mph. For all non-aerial applications, wind speed must be measured adjacent to the application site on the upwind side, immediately prior to application.

Do not make aerial or ground applications into areas of temperature inversions. Inversions are characterized by stable air and increasing temperatures with increasing distance above the ground. Mist or fog may indicate the presence of an inversion in humid areas. Where permissible by local regulations, the applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of increased spray drift. Avoid spraying during conditions of low humidity and/or high temperatures.

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.

For ground boom applications, apply with nozzle height no more than 4 feet above the ground or crop canopy.

APPLICATION SCHEDULES

Apply this product to broadleaf weeds that are young and actively growing for the best results. Spring and fall treatments under adequate soil moisture conditions are preferred to the summer treatments. Generally, summer broadcast applications to older, drought stressed weeds are less effective. Fall applications provide improved control for emerged winter annuals and perennials such as henbit, chickweed, clover and ground ivy.

Sequential broadcast applications or follow-up applications as spot treatments at a 2-6 week interval are recommended for more mature weeds, for dense infestations, and for adverse environmental conditions.

Spot treatments during the summer may be appropriate for sparse infestations, or as a follow-up treatment, or any time broadleaf weeds are actively growing.

Extremes in environmental conditions e.g. temperature and moisture, soil conditions, and cultural practices may affect the activity of this product. Under warm moist conditions, herbicide symptoms may be accelerated. While under very dry conditions, the expression of herbicide symptoms is delayed, and weeds hardened off by drought are less susceptible to this product.

For newly seeded areas:

Delay application of this product to grass seedlings until after the second mowing.

For newly sodded, sprigged, or plugged areas:

The application of this product to newly sodded, sprigged, or plugged grasses should be delayed until 3 to 4 weeks after the sodding, sprigging, or plugging operations.

Reseeding interval:

Treated areas may be reseeded 3 weeks after application.

HOW MUCH TO USE USE RATES AND SPRAY VOLUMES

Generally, the lower application rates within the specified range will provide satisfactory control of sensitive weed species. The higher application rates within the specified range will be required for dense infestations of perennial

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weeds, for adverse/extreme environmental conditions, or for weeds hardened off or more mature.

The maximum seasonal rate of sulfentrazone contained in this product with two (2) broadcast applications to turfgrass is 0.074 pounds of sulfentrazone per acre per season. The retreatment interval for sequential broadcast applications of this product on turfgrass is two (2) to six (6) weeks depending upon the growth stages of the target weeds.

The maximum application rate to turf is 0.9 pounds 2,4-D acid equivalent per acre per application per site. The maximum number of broadcast applications per treatment site is 2 per year.

TABLE 1. USE RATES FOR SOD FARMS, ORNAMENTAL LAWNS AND TURFGRASS.

	RATE	SPRAY VOLUME
COOL-SEASON TURF		
Kentucky bluegrass, annual bluegrass, annual ryegrass, perennial ryegrass, tall fescue, red or fine leaf fescues, creeping bentgrass and colonial bentgrass (excluding golf greens and tees). Mixtures of cool-season species in non-cropland areas established for roadside vegetation management or for low maintenance. (Kentucky bluegrass, tall fescue, smooth brome grass and orchardgrass)	3¼-4 Pints/Acre (1.2 to 1.5 fl. oz./ 1,000 sq. ft.)	20-220 Gallons/Acre (0.5 to 5.0 Gallons/ 1,000 sq. ft.)
WARM-SEASON TURF		
Hybrid bermudagrass, common bermudagrass, zoysiagrass, bahiagrass and buffalograss	2½-3¼ Pints/Acre (1.0 to 1.2 fl. oz./ 1,000 sq. ft.)	20-220 Gallons/Acre (0.5 to 5.0 Gallons/ 1,000 sq. ft.)
Do not apply this product to warm-season turfgrass during spring green-up or in the fall during the transition period between active growth and dormancy. Dormant turf: This product may be applied to fully dormant bermudagrass, fully dormant zoysiagrass, and fully dormant bahiagrass.		

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SPOT TREATMENT

WITH HAND-OPERATED SPRAYERS (INCLUDING BACKPACK SPRAYERS, COMPRESSION SPRAYERS, AND KNAPSACK SPRAYERS)

- Apply any time the emerged broadleaf weeds are actively growing.
- Calibration and proper application are essential when using this product.
- Uniform applications are essential when using this product. Over-application or rates above those specified on this label including excessive overlaps of this product can cause turf injury.
- Hand-held techniques: Wands fitted with flat fan nozzle tips may be used with the appropriate technique. Flat fan nozzles should not be waved in a back-and-forth motion, or in a side-to-side motion, or in a swinging arm motion. Instead, the nozzle should be held stationary at the proper height. Side-to-side motions result in uneven coverage.
- Follow-up applications as spot treatments at a 2-6 week interval are recommended for more mature weeds, for dense infestations, and for adverse environmental conditions.
- **For cool-season turfgrass:** Mix 1.2-1.5 fl. oz. of this product per one (1.0) gallon of water for treatment of approximately 1,000 sq.ft of turfgrass. Apply any time the emerged broadleaf weeds are susceptible.
- **For warm-season turfgrass:** Mix 1.0-1.2 fl. oz. of this product per one (1.0) gallon of water for treatment of approximately 1,000 sq.ft of turfgrass. Apply any time the emerged broadleaf weeds are susceptible.

CULTURAL TIPS

Irrigation:

- Do not apply this product through any type of irrigation system.
- Rainfast in as little as 6 hours. Do not apply this product immediately before rainfall or irrigation.
- If possible, do not irrigate or water the turfgrass within 6 to 24 hours after application.
- If dry conditions exist, a scheduled irrigation or watering 24 hours before and 24 hours after application is recommended.

Mowing:

- Delay mowing 2 days before and until 2 days after the application of this product.

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BROADLEAF WEEDS CONTROLLED

SURGE® Broadleaf Herbicide For Turf will control or suppress the following broadleaf weeds and will control or suppress broadleaf weeds that are susceptible to 2,4-D. Apply any time the emerged broadleaf weeds are susceptible.

- BROADLEAF WEEDS -

Aster, white heath
 & white prairie
 Bedstraw
 Beggarweed, creeping
 Bindweed
 Black medic
 Broadleaf plantain
 Buckhorn plantain
 Bull thistle
 Burdock, common
 Buttercup, creeping
 Carpetweed
 Chickweed, common
 Chicory
 Cinquefoil
 Clover
 Curly dock
 Dandelion
 Dayflower
 Deadnettle
 Dock
 Dogfennel
 Dollarweed (*pennywort)
 False dandelion
 (*spotted catsear &
 common catsear)
 Field bindweed
 (*morningglory &
 creeping jenny)

Field oxeye-daisy
 (*creeping oxeye)
 Filaree, whitestem & redstem
 Florida betony
 Florida pusley
 Ground ivy
 Groundsel
 Hawkweed
 Healall
 Henbit
 Innocence (Blue-eyed Mary)
 Knotweed
 Lambsquarters
 Lawn burweed
 Lespedeza, common
 Mallow, common
 Matchweed
 Mouseear chickweed
 Nutsedge** (yellow)
 Old world diamond flower
Oxalis (*yellow woodsorrel
 & creeping woodsorrel)
 Parsley-piert
 Pennsylvania smartweed
 Pepperweed
 Pigweed
 Pineappleweed
 Plantain
 Poison ivy

Poison oak
 Prickly lettuce
 (*compass plant)
 Puncturevine
 Purple cudweed
 Purslane
 Ragweed
 Redweed
 Red sorrel (*sheep sorrel)
 Shepherdspurse
 Spurge
 Thistle
 Virginia buttonweed
 White clover (*Dutch clover,
 honeysuckle clover,
 white trefoil, & purplewort)
 Wild carrot
 Wild garlic
 Wild geranium
 Wild lettuce
 Wild mustard
 Wild onion
 Wild strawberry
 Yarrow
 Yellow rocket
 and many more
 broadleaf weeds

*Synonyms

**Suppression only when nutsedge is young and actively growing.

TOUGH WEED CONTROL IN INDUSTRIAL OR LOW MAINTENANCE AREAS

Mixed stands of Kentucky bluegrass, tall fescue, smooth bromegrass, orchardgrass and reed canarygrass may be treated.

Treatments of SURGE® Broadleaf Herbicide For Turf may injure or kill legumes including clovers (sweet, yellow, red, crimson, alsike, hop, white), lespedezas, trefoils and vetches.

TABLE 2. RATES OF PRODUCT PER ACRE FOR SPECIFIC HARD-TO-CONTROL WEEDS WITH GROUND EQUIPMENT.

Weed Types	Troublesome Weeds Such As:	Amount of Product, Pints/Acre ¹	When to Apply
Annual Broadleaf	Ivyleaf morningglory, redroot pigweed, cocklebur, sunflower, velvetleaf (butterprint)	2.5-4.0 pints/acre	Spring or fall during active growth.
Biennial	Bull thistle, musk thistle, common burdock	4.0-5.0 pints/acre	Spring or fall during seedling to rosette stage.
Perennial	Burclover, Canada thistle, field bindweed, English daisy, hoary cress (whitetop), <i>Veronica</i> (corn speedwell), wild violet.	4.0-5.0 pints/acre	Spring or fall during bud to bloom stage.

Footnote 1: Use the lower rate within the range specified for highly favorable plant growing conditions and when broadleaf weeds are less than 6 inches in height.
Use the higher rate within the range specified for tall vegetation, dense canopies, weeds beyond the suggested growth stage, or during adverse conditions.

Biennial and perennial weeds may require follow-up or sequential treatments.

The maximum application rate is 0.9 pounds 2,4-D acid equivalent per acre per application per site.

The maximum seasonal rate of sulfentrazone contained in this product with two (2) broadcast applications to turfgrass is 0.074 pounds of sulfentrazone per acre per season. The retreatment interval for sequential broadcast applications of this product on turfgrass is two (2) to six (6) weeks depending upon the growth stages of the target weeds.

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Spray volumes with ground equipment:

- For SURGE® Broadleaf Herbicide For Turf alone, use a minimum spray volume of 10.0 gallons per acre (gpa).
- For tank mixtures of SURGE® Broadleaf Herbicide For Turf, use a minimum spray volume of 20.0 gallons per acre or use the specified spray volume of the companion product(s).

Adjuvants:

The addition of adjuvants (surfactants, spreaders, spreader-stickers, spray thickeners, foaming agents activators, detergents, and drift reducing agents,) is not necessary when using this product. Under extreme environmental conditions such as drought, the addition of a surfactant may improve efficacy. However, if the foliar phytotoxicity (leaf burn and necrosis) occurs too quickly, then the translocation of SURGE® Broadleaf Herbicide For Turf will not occur and the level of performance (control) may be reduced in perennial broadleaf weeds. Do not use adjuvants and spray additive tank-mix combinations, unless your experience indicates that the tank mixture will not result in turf injury.

STORAGE & DISPOSAL

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

PESTICIDE STORAGE: Store in original container in a locked storage area inaccessible to children or pets. Keep from freezing.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law and may contaminate groundwater. If these wastes cannot be disposed of by use according to label instructions, contact your state Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: For 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.

For 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.

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

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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.

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