

62719-546

06/13/2007

1/12



U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Registration Division (7505C)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

NOTICE OF PESTICIDE:

- Registration
- Reregistration

(under FIFRA, as amended)

EPA Reg.

Number:

62719-546

Date of Issuance:

JUN 13 2007

Term of Issuance:

Conditional - Expires
June 7, 2012

Name of Pesticide Product:

GF-443 SC

Name and Address of Registrant (include ZIP Code):

Dow AgroScience LLC
9330 Zionsville Road
Indianapolis, IN 46268-1054

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7) provided you agree in writing to:

1. Include the complete establishment number, and EPA Reg. No. 62719-546 on the label.

- Continued on next page -

Signature of Approving Official:

Joanne I. Miller, Product Manager (23)
Herbicide Branch, Registration Division (7505C)

Date:

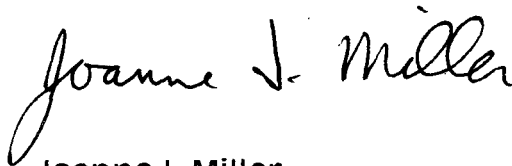
JUN 13 2007

2/12

2. Under "General Information", add the sentence " The active ingredient in this product may leave residues in treated grass mulch which could be harmful to some plants. Care should be exercised when using treated grass clippings as mulch around plants, including trees."
3. Submit one copy of your final printed labeling before you release the product for shipment.

A stamped copy of labeling is enclosed for your records. If you have any questions please contact Phil Errico at 703-305-6663.

Sincerely,



Joanne I. Miller
Product Manager (23)
Herbicide Branch
Registration Division (7505P)

Enclosure: Stamped Conditionally Registered Product Label with EPA Reg. No. 62719-546

3/12

[Sub Label A: Turf Uses]

(Base Label):

GF-443 SC

Herbicide

For postemergence control of annual and perennial broadleaf weeds in established turfgrass, including residential lawns, golf courses, sports fields, sod farms and around commercial buildings and other commercial turfgrass areas

Active Ingredient:

penoxsulam: 2-(2,2-difluoroethoxy)-N-(5,8-dimethoxy[1,2,4] triazolo[1,5c]pyrimidin-2-yl)-6-(trifluoromethyl)benzenesulfonamide	21.7%
Other Ingredients	78.3%
Total	100.0%

**ACCEPTED
with COMMENTS
In EPA Letter Dated**

JUN 13 2007

**Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.**

62119-546

Contains 2 lb of active ingredient per gallon

Keep Out of Reach of Children

CAUTION

Precautionary Statements

Hazards to Humans and Domestic Animals

Harmful If Inhaled

Avoid breathing spray mist.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks

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.

Engineering Controls

When handlers use closed systems, enclosed cabs, or aircraft 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 hands 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.

First Aid

4/12

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 center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may contact 1-800-992-5994 for emergency medical treatment information.

Environmental Hazards

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 or rinsate.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. Refer to label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

Refer to label booklet for Directions for Use including Storage and Disposal.

Notice: Read the entire label. Use only according to label directions. **Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies at end of label booklet. If terms are unacceptable, return at once unopened.**

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994. If you wish to obtain additional product information, visit our web site at www.dowagro.com.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

EPA Reg. No. 62719-LUA

EPA Est. _____

Dow AgroSciences LLC • Indianapolis, IN 46268 USA

Net Contents _____

5/12

(Label Booklet Cover):

GF-443 SC

Herbicide

For postemergence control of annual and perennial broadleaf weeds in established turfgrass, including residential lawns, golf courses, sports fields, sod farms and around commercial buildings and other commercial turfgrass areas

Active Ingredient:

penoxsulam: 2-(2,2-difluoroethoxy)-N-(5,8-dimethoxy[1,2,4] triazolo[1,5c]pyrimidin-2-yl)-6-(trifluoromethyl)benzenesulfonamide	21.7%
Other Ingredients	78.3%
Total	100.0%

Contains 2 lb of active ingredient per gallon

Keep Out of Reach of Children

CAUTION

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. Refer to label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

Refer to inside of label booklet for additional precautionary information including Personal Protective Equipment (PPE), User Safety Recommendations and Directions for Use including Storage and Disposal.

Notice: Read the entire label. Use only according to label directions. **Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies at end of label booklet. If terms are unacceptable, return at once unopened.**

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6/12

(Page 1 through end):

Precautionary Statements

Hazards to Humans and Domestic Animals**CAUTION**

Harmful If Inhaled

Avoid breathing spray mist.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks

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.

Engineering Controls

When handlers use closed systems, enclosed cabs, or aircraft 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 hands 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.

First Aid

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 center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may contact 1-800-992-5994 for emergency medical treatment information.

Environmental Hazards

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 or rinsate.

Directions for Use

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

Read all Directions for Use carefully before applying.

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. 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 (PPE), 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 12 hours.

PPE required 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, is:

- Coveralls
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

Non-Agricultural Use Requirements

The requirements of 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.

Entry Restrictions for Non-WPS Uses: Keep unprotected persons out of treated areas until sprays have dried.

Storage and Disposal

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

Pesticide Storage: Store in cool dry place in original container.

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 (Plastic): 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.

General Information

GF-443 SC herbicide provides postemergence control of annual and perennial broadleaf weeds in established turfgrass, including residential lawns, golf courses, sports fields, sod farms and around commercial buildings and other commercial turfgrass areas. Susceptible weeds emerged at the time of application will be controlled. A spray volume of 20 gallons per acre (gpa) or more and uniform coverage are required for optimum performance. GF-443 SC is rainfast within one hour after application and has soil residual herbicidal activity dependent upon weed species, soil type, soil moisture (rainfall or irrigation after application) and the rate of application.

General Use Precautions and Restrictions

- Do not apply GF-443 SC to golf course putting greens or tees.
- Do not allow tank mixes of GF-443 SC to sit overnight.
- Do not apply GF-443 SC directly to, or otherwise permit GF-443 SC to come into contact with, flowers, ornamental shrubs or trees, or other desirable broadleaf plants, as serious injury may occur. Do not permit spray mists containing GF-443 SC to drift onto desirable broadleaf plants.
- Do not apply more than 0.08 pints of GF-443 SC (0.02 lb ai penoxsulam) per acre per application to perennial ryegrass and tall fescue unless some injury can be tolerated.
- Do not allow sprays of GF-443 SC to contact exposed suckers or exposed roots of shallow rooted trees and shrubs or injury may occur.
- To minimize the potential for grass injury, additional applications should not be made within four weeks of a previous application.

- Do not apply more than 0.36 pints of GF-443 SC (0.09 lb ai penoxsulam) per acre per annual growing season.
- Use this product strictly in accordance with the drift and runoff precautions on this label in order to minimize off-site exposure.
- **Chemigation:** Do not apply this product through any type of irrigation system.

Treatment on Turfgrass Species Not Listed on the Label for GF-443 SC

Users who wish to use GF-443 SC on turfgrass species not recommended on this label may determine the suitability for use by treating a small area at a recommended rate. Prior to treatment of larger areas, the treated area should be observed for any sign of herbicidal injury during 30 days of normal growing conditions to determine if the target turfgrass species is tolerant. The user assumes responsibility for any plant damage or other liability resulting from use of GF-443 SC on turfgrass species not recommended on this label.

GF-443 SC is recommended for use on the following established turfgrass species (numbers in parentheses (-) refer to footnotes below):

Established Cool Season Turfgrass (1)

Common Name	Scientific Name
bentgrass	<i>Agrostis</i> species
bluegrass, Kentucky	<i>Poa pratensis</i>
fescue, chewing	<i>Festuca rubra</i> var. <i>commutata</i>
fescue, creeping red	<i>Festuca rubra</i>
fescue, sheeps	<i>Festuca ovina</i>
fescue, tall (2)	<i>Festuca arundinaceae</i>
ryegrass, perennial (2)	<i>Lolium perenne</i>

Established Warm Season Turfgrass (3)

Common Name	Scientific Name
bahiagrass	<i>Paspalum notatum</i> var. <i>saurae</i>
Bermudagrass (common or hybrid)	<i>Cynodon dactylon</i>
centipedegrass	<i>Eremochloa ophiuroides</i>
fescue, tall (growing in warm season areas) (2)	<i>Festuca arundinaceae</i>
kikuyugrass	<i>Pennisetum clandestinum</i>
seashore paspalum	<i>Paspalum vaginatum</i>
St. Augustinegrass	<i>Stenotaphrum secundatum</i>
zoysiagrass	<i>Zoysia japonica</i>
zoysiagrass	<i>Zoysia tenuifolia</i>

1. Use no more than 0.16 pints of GF-443 SC (0.04 lb ai penoxsulam) per acre per application.
2. Use GF-443 SC on these species at a maximum rate of 0.08 pints (0.02 lb ai penoxsulam) per acre per application and only if some injury can be tolerated. A slight yellowing of turfgrass may occur within two weeks of application. The discoloration is transient and is generally gone within four weeks of treatment under adequate growing conditions.
3. Use no more than 0.24 pints of GF-443 SC (0.06 lb ai penoxsulam) per acre per application.

Spray Drift Management

Avoiding spray drift is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. Low humidity and high temperatures increase the evaporation rate of spray droplets and, therefore, the likelihood of increased spray drift. Make applications only when there is little or no hazard from spray drift. The applicator, crop consultant, and grower are responsible for considering all of these factors when making the decision to apply this product.

9/12

Avoid all direct or indirect contact with non-target plants. Do not apply near desirable vegetation. Allow adequate distance between target area and desirable plants to minimize exposure.

Sensitive Areas: The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., bodies of water, known habitat for threatened or endangered species, non-target plants) is minimal (e.g., when wind is blowing away from the sensitive areas).

Weeds Controlled or Suppressed

Generally, application rates at the lower end of the recommended rate range will be satisfactory for young, succulent growth of sensitive weed species. For less sensitive species, perennials, and other conditions where control is more difficult (plant stress conditions such as drought or extreme temperatures, dense weed stands and/or larger weeds), the higher rate within the rate range or repeat applications will be needed. Weeds growing in the absence of competition from other vegetation generally require higher rates or repeat applications to obtain satisfactory control or suppression.

Weeds Controlled or Suppressed		Rate	
		pt/acre	fl oz/1000 sq ft
burdock	ivy, ground	0.08 – 0.24	0.03 – 0.09
chickweed (common)	lambquarters		
chickweed (mouseear)	lespedeza, common		
clover, hop	matchweed		
clover, red	medic, black		
clover, white	plantain, broadleaf		
cocklebur, common	plantain, buckhorn		
coffeeweed	purslane, common		
common vetch	ragweed, common		
creeping beggerweed	round leaf mallow		
curly dock	sheep sorrel		
dandelion, common	shepherd's purse		
dollarweed	smartweed		
dwarf beggerweed	spotted catsear		
English lawn daisy ¹	spurweed		
false dandelion	Virginia buttonweed		
Florida betony	Virginia pepperweed		
goldenrod	wild violet		
hawkweed	woodsorrel, creeping		
henbit	woodsorrel, yellow		
kyllinga, annual and green (suppression only) ²	nutsedge, yellow ²	0.16 – 0.24	0.06 – 0.09
nutsedge, purple ²			

¹Special use instructions for controlling English lawn daisy:

- Late summer/fall applications of GF-443 SC have shown to provide better control of English lawn daisy than spring applications.
- Irrigate the day before applications are planned to assure turfgrass and English lawn daisy are not stressed.
- Make two to three applications on a 21-day interval at 0.04 to 0.08 pints of product per acre. Use the higher rate when heavy English lawn daisy populations are observed.
- Tank mix a quality nonionic surfactant with all applications of GF-443 SC.
- Heat and irrigation stress increase the potential for turfgrass injury. *Poa annua*, creeping bentgrass, Kentucky bluegrass and kikuyugrass are tolerant to GF-443 SC. Perennial ryegrass and tall fescue show some sensitivity. A slight yellowing of turfgrass may occur within two weeks of application. The discoloration is transient and is generally gone within two to four weeks of treatment under adequate growing conditions.

10/12

²Re-treatment may be necessary.

Mixing Instructions

GF-443 SC - Alone

Fill spray tank with water equal to 1/2 to 3/4 of the required spray volume. Start agitation. Add the required amount of GF-443 SC, then finish filling the tank. Continue agitation while filling spray tank to required volume and during application.

GF-443 SC - Tank Mix

GF-443 SC may be applied in tank mix combination with other herbicides labeled for use on turfgrass to control additional weeds. Tank mixing or using GF-443 SC with any other product not specifically and expressly authorized by the label shall be the exclusive risk of the user, applicator and/or application advisor. When tank mixing, follow label directions, including application rates, use precautions and limitations on each respective label. Continuous agitation is required for tank mixes.

Tank Mix Precautions:

- Do not exceed recommended application rates. Do not tank mix with another pesticide product that contains the same active ingredient as this product unless the label of either tank mix partner specifies the maximum dosages that may be used.
- For other products packaged in water soluble packaging, do not tank mix with products containing boron or mix in equipment previously used to apply a product mixture containing boron unless the tank and spray equipment has been adequately cleaned.
- Always perform a (jar) test to ensure the compatibility of products to be used in tank mixture.

Tank Mix Compatibility Testing: When tank mixing GF-443 SC with other materials, a compatibility test (jar test) using relative proportions of the tank mix ingredients should be conducted prior to mixing ingredients in the spray tank. Use a clear glass quart jar with lid and mix the tank mix ingredients in their relative proportions. Invert the jar containing the mixture several times and observe the mixture for approximately 1/2 hour. If the mixture balls-up, forms flakes, sludges, jels, oily films or layers, or other precipitates, it is not compatible and the tank mix combination should not be used.

Mixing Order: Fill the tank with water to 1/4 to 1/3 of the required spray volume. Start the agitation. Different formulation types should be added in the following order: dry flowables (DF), wettable powders (WP), aqueous suspensions (AS), flowables (F), or liquids (L). Allow each product type to completely disperse before adding another. Continue agitation and fill tank to 3/4 full, add the correct quantity of GF-443 SC and mix thoroughly. Finally, add any solution (S) formulations, agitate and finish filling. Maintain agitation during filling and during application. If spraying and agitation must be stopped before the tank is empty, suspended materials may settle to the bottom. It is important to resuspend all of the settled material before continuing application. A sparger agitator is particularly useful for this purpose. Do not allow tank mixes to set overnight.

Application Instructions

Standard Volume Broadcast Application

Apply in a spray volume of 20 gpa or more (0.5 gallons or more per 1000 sq ft). Use a higher application volume when complete and uniform application must be ensured, i.e., when GF-443 SC is tank mixed with foliar fertilizers. If required, spray volume up to 200 gpa may be used.

Low Volume Application

Apply in a spray volume of 5 to 20 gpa (0.08 to 0.5 gallons per 1000 sq ft). Use low pressure and application equipment capable of delivering a uniform spray droplet. To improve spray coverage, the addition of a nonionic surfactant at a rate of 1/4 to 1/2 pint per acre is suggested. Use the higher rate of surfactant for lower rates of GF-443 SC and lower spray volumes.

Spot Treatments and/or Hand-Held Sprayers

11/12

Spot treatments should be applied at rates equivalent to broadcast applications.

Hand-Held Sprayers: Hand-held or backpack sprayers may be used for spot applications of GF-443 SC if care is taken to apply the spray uniformly and at a rate equivalent to a broadcast application.

Application rates in the table are based upon an area of 1000 sq ft. The amount of GF-443 SC (fl oz or mL) in the table should be mixed with 1 gallon or more of water and applied to an area of 1000 sq ft. To calculate the amount of product required for larger areas, multiply the table value (fl oz or mL) by the area to be treated in "thousands" of square feet, e.g., if the area to be treated is 3500 sq ft, multiply the table value by 3.5 (calculation: $3500 \div 1000 = 3.5$). An area of 1000 sq ft is approximately 10.5 x 10.5 yards (strides) in size.

Rates and Timing of Application

Apply GF-443 SC to turfgrass at the rate of 0.08 to 0.24 pints per acre as a ground broadcast treatment or spot treatment. Calibrate application equipment prior to use according to manufacturer's directions. Avoid skips or overlaps as poor weed control or plant injury may occur.

GF-443 SC Broadcast Rates

Rate pint/Acre	Amount	
	fl oz ¹	mL
0.08	0.03	0.9
0.16	0.06	1.8
0.24	0.09	2.7

¹1 fl oz = 29.6 (30) mL

Best weed control results are obtained when GF-443 SC is applied to small, actively growing weeds. Extreme growing conditions such as drought or near freezing temperatures prior to, at, or following time of application may reduce weed control. Broadleaf weed species germinate at different times.

Apply GF-443 SC to newly seeded cool season turfgrass only after the third mowing or after the turfgrass seedlings have tillered and developed an adequate secondary root system. Reseeding is not recommended for at least four weeks after application.

This product may also be applied to newly established warm season turfgrass. Delay treatments until two to four weeks after sodding, sprigging or plugging.

Terms and Conditions of Use

If terms of the following Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. Otherwise, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies.

Warranty Disclaimer

Dow AgroSciences warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. To the extent permitted by law, Dow AgroSciences MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

Inherent Risks of Use

It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes),

12/12

presence of other materials, the manner of application, or other factors, all of which are beyond the control of Dow AgroSciences or the seller. To the extent permitted by law, all such risks shall be assumed by buyer.

Limitation of Remedies

To the extent permitted by law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Dow AgroSciences' election, one of the following:

- (1) Refund of purchase price paid by buyer or user for product bought, or
- (2) Replacement of amount of product used.

To the extent permitted by law, Dow AgroSciences shall not be liable for losses or damages resulting from handling or use of this product unless Dow AgroSciences is promptly notified of such loss or damage in writing. In no case shall Dow AgroSciences be liable for consequential or incidental damages or losses.

To the extent permitted by law, the terms of the Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Dow AgroSciences or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

EPA accepted / /