

70506-47

11/24/2010

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

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

United Phosphorus, Inc.
Rebecca A. Clemmer
630 Freedom Business Center
Suite 402
King of Prussia, PA 19406

NOV 24 2010

Subject: Label Notification for Pesticide Registration Notice 2007-4
Surflan 0.25 A.S.
EPA Reg. No. 70506-47
Application Dated: August 18, 2010

Dear Ms. Clemmer,

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 2007-4 for Surflan 0.25 A.S. (EPA Reg. No. 70506-47) dated August 18, 2010. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 2007-4 and finds that the action requested falls within the scope of PRN 2007-4.

We have also reviewed the updates to company and emergency contact information and updated warranty and find that these actions fall within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions, please call me directly at (703) 305-1243.


Sincerely,

A handwritten signature in black ink, appearing to read "Kathryn V. Montague".

Kathryn V. Montague, Product Manager 23
Herbicide Branch
Registration Division (7505P)
Office of Pesticide Programs

Please read instructions on reverse before completing form

Form Approved, OMB No. 2070-0060, Approval expires 5-31-98

 Environmental Protection Agency Washington, DC 20460	United States	<input type="checkbox"/> Registration <input type="checkbox"/> Amendment <input checked="" type="checkbox"/> Other	OPP Identifier Number	
	Environmental Protection Agency			
	Washington, DC 20460			

Application for Pesticide - Section I

1. Company/Product Number 70506-47	2. EPA Product Manager Montague	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) United Phosphorus, Inc/Surflan 0.25 A.S.	PM # 23	
5. Name and Address of Applicant (Include ZIP Code) United Phosphorus, Inc. 630 Freedom Business Center, Suite 402 King of Prussia, PA 19406 <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 type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application
<input checked="" type="checkbox"/> Notification - Explain below	<input type="checkbox"/> Other - Explain below


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

Notification of label changes per PR Notice 2007-4 and PR 98-10. This notification is consistent with the guidance in PRN 2007-4 and PRN 98-10 and the requirements of EPA's regulations at 40CFR§152.46, 156.10, 156.140, 156.144, 156.146, 156.156. No other changes have been made to the labeling or the CSF for this product. I understand that it is a violation of 18 USC Sec. 1001 to willfully make any false statement to EPA. I further understand that if the amended label is not consistent with the sections above, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Section III

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

Section IV

1. Contact Person (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)					
Name Rebecca A. Clemmer		Title Regulatory Manager		Telephone No. (Include Area Code) 610-491-2828	
Certification					6. Date Application Received <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;">(Stamped)</div>
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					
2. Signature 		3. Title Regulatory Manager			
4. Typed Name Rebecca A. Clemmer		5. Date August 18, 2010			



United Phosphorus, Inc.

630 Freedom Business Center
Suite 402
King of Prussia, PA 19406
(610) 491-2828 (phone)
(610) 491-2810 (fax)

Rebecca A. Clemmer
Regulatory Manager

August 19, 2010

Kathryn Montague (PM 23)
Document Processing Desk (NOTIF)
Office of Pesticide Programs (7504P)
U.S. Environmental Protection Agency
Room S-4900, One Potomac Yard
2777 S. Crystal Drive
Arlington, VA 22202

Re: Notification of Container Disposal Changes per PRN 2007-4

Dear Ms. Montague:

United Phosphorus, Inc. is providing Notification of the following changes in the labels for products listed below: container disposal wording per PRN 2007-4; updates to company and emergency contact information and updated warranty per PRN 98-10.

Products:

- Surflan 75WSP – EPA Reg. No. 70506-40
- Surflan 75W – EPA Reg. No. 70506-42
- Surflan 0.25 A.S. – EPA Reg. No. 70506-47
- Surflan 75W Manufacturing Use Product – EPA Reg. No. 70506-54

In support, for each product you will find:

- copy of the label marked to show changes
- EPA form 8570-1

Please contact me if you have any questions.

Very truly yours,

Rebecca A. Clemmer
rebecca.clemmer@uniphos.com



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Surflan 0.25 A.S.

A Selective Preemergence Surface-Applied Herbicide for Use in Established Ornamentals and Southern Turfgrasses for the Control of Annual Grasses and Many Broadleaf Weeds in:

- Container Grown Ornamental Plants
- Ground Covers
- Noncropland Areas
- Ornamental Trees
- Ornamental Plants (Including Around Highway and Industrial Sites)
- Ornamental Woody Shrubs
- Southern Turfgrasses (Including Bahiagrass, Bermudagrass, Centipedegrass, St. Augustinegrass, Tall Fescue and Zoysiagrass)

**NOTIFICATION
NOV 24 2010**

Active Ingredient:

oryzalin: 3,5-dinitro-*N,N'*-
dipropylsulfanilamide 3%

Inert-Other Ingredients 97%

Total 100%

Contains 0.25 pounds active ingredient per gallon.

Avoid Freezing--Store Above 40°F

Keep Out of Reach of Children

CAUTION

First Aid

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. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. For 24 hour emergency medical assistance, call the National Pesticide Information Rocky Mountain Poison Control Center 1-800-858-7378/866-673-6671.

For chemical emergency: spill, leak, fire, exposure, or accident, call CHEMTREC 1-800-424-9300.

Do Not Ship or Store with Food, Feeds, Drugs, or Clothing.

United Phosphorus, Inc.

423 Riverview Plaza 630 Freedom Business Center

Trenton, NJ 08611 King of Prussia, PA 19406

1-800-247-1557/438-6071 • www.upi-usa.com

EPA Reg. No. 70506-47

EPA Est. _____

Herbicide

Net Contents - _____



Precautionary Statements

Hazards to Humans and Domestic Animals

Keep Out of Reach of Children

CAUTION

Causes Moderate Eye Irritation • May Cause Skin Allergies To Develop

Avoid contact with skin, eyes or clothing.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves
- Shoes plus socks
- In addition, mixers and loaders must also wear a chemical-resistant apron.

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.

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.
- Remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing. Wash the outside of gloves before removing.

Environmental Hazards

This pesticide is toxic to fish. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent aquatic sites. Do not contaminate water when disposing of equipment wash waters 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.

Not for use on plants grown for sale or other commercial use, or for commercial seed production, or for research purposes. For use on plants intended for aesthetic purposes or climatic modification and being grown in interior landscapes, ornamental gardens or parks, or on golf courses or lawns and grounds.

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.

Storage and Disposal

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

Pesticide Storage: Avoid freezing. Store above 40°F. Store in original container only. In case of leak or spill, use absorbent materials to contain liquids and dispose as waste.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.



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Container Disposal: Nonrefillable container. Do not reuse or refill this container. 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. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for alter use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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General Information

Surflan 0.25 A.S. is a preemergence surface-applied herbicide for the control of annual grasses and many broadleaf weeds.

Soil Preparation: Surflan 0.25 A.S. will not control established weeds. Therefore, areas to be treated should be free of established weeds. Weed residues, prunings and trash should be thoroughly mixed into the soil or removed prior to treatment. The soil should be in good tilth and free of clods at the time of application.

Application Restrictions:

- Keep all persons, children, and pets out of treated area until sprays have dried.
- Do not graze or feed forage from treated areas to livestock.
- Do not aerially apply this product.
- **Chemigation:** Do not apply this product through any type of irrigation system.

Ornamentals

General Use Precautions and Restrictions for Ornamentals

Apply only to established plantings. Rooted liners should be established in containers two weeks prior to treatment or crop injury may occur.



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Do not apply Surflan 0.25 A.S. in ornamental plantings where the likelihood of runoff onto lawn areas containing dichondra or cool-season turfgrass species exists as severe injury or death may occur. Poor weed control may result if directions are not followed. Over application may result in crop injury or excessive soil residue.

Plant only ornamental species listed on this label into soil treated the previous season with Surflan 0.25 A.S. or injury may occur.

Grasses Controlled by Surflan 0.25 A.S.

Common Name	Scientific Name
barley, little	<i>Hordeum pusillum</i>
barnyardgrass (Watergrass)	<i>Echinochloa crusgalli</i>
bluegrass, annual	<i>Poa annua</i>
brachiaria (signalgrass)	<i>Brachiaria</i> spp.
crabgrasses	<i>Digitaria</i> spp.
(large crabgrass)	
(smooth crabgrass)	
crowfootgrass	<i>Dactyloctenium aegyptium</i>
cupgrass, southwestern	<i>Eriochloa gracilis</i>
foxtails	<i>Setaria</i> spp.
(bottlegrass)	
(bristlegrass)	
(giant foxtail)	
(green foxtail)	
(pigeongrass)	
(robust foxtail)	
(yellow foxtail)	
goosegrass (Silver crabgrass)	<i>Eleusine indica</i>
johnsongrass (Seedling only)	<i>Sorghum halepense</i>
junglerice	<i>Echinochloa colonum</i>
lovegrass, Mexican	<i>Eragrostis mexicana</i>
lovegrass, orcutt	<i>Eragrostis orcuttiana</i>
oat, wild	<i>Avena fatua</i>
panicum, browntop	<i>Panicum fasciculatum</i>
panicum, fall (Spreading panicgrass)	<i>Panicum dichotomiflorum</i>
panicum, Texas	<i>Panicum texanum</i>
buffalograss	
coloradograss	
ryegrass, Italian	<i>Lolium multiflorum</i>
sandbur, field	<i>Cenchrus incertus</i>
sprangletop, red	<i>Leptochloa filiformis</i>
witchgrass	<i>Panicum capillare</i>

Broadleaf Weeds Controlled by Surflan 0.25 A.S.

Common Name	Scientific Name
bittercress	<i>Cardamine</i> spp.
carpetweed	<i>Mollugo verticillata</i>
chickweed, common	<i>Stellaria media</i>
fiddleneck, coast	<i>Amsinckia intermedia</i>
filaree, redstem	<i>Erodium cicutarium</i>
filaree, whitestem	<i>Erodium moschatum</i>
groundsel, common	<i>Senecio vulgaris</i>
henbit	<i>Lamium amplexicaule</i>
knotweed, prostrate	<i>Polygonum aviculare</i>



lambquarters	<i>Chenopodium album</i>
pigweeds	<i>Amaranthus spp.</i>
(carelessweed)	
(prostrate pigweed)	
(redroot)	
(rough pigweed)	
(spring pigweed)	
(tumble pigweed)	
puncturevine	<i>Tribulus terrestris</i>
purslane, common	<i>Portulaca oleracea</i>
pusley, Florida	<i>Richardia scabra</i>
(Florida purslane)	
(Mexican clover)	
(pusley)	
rocket, London	<i>Sisymbrium irio</i>
rockpurslane, desert	<i>Calandrinia ciliata</i>
shepherdspurse	<i>Capsella bursa pastoris</i>
spurge, prostrate	<i>Euphorbia humistrata</i>
woodsorrel, yellow	<i>Oxalis stricta</i>

Suppression of the following weeds may be erratic, ranging from poor to excellent, depending upon soil temperature, time of germination, depth of seed in the soil, amount and timing of soil moisture.

Common Name	Common Name
annual sowthistle	morningglory
black mustard	prickly lettuce
black nightshade	smartweed
climbing milkweed	spotted spurge
common mallow	teaweed (prickly sida)
common ragweed	velvetleaf
horseweed	volunteer wheat
ladysthumb	wild mustard

Surflan 0.25 A.S. will not control established weeds.

Mixing Directions

Start with a clean spray tank. Fill sprayer one-third (1/3) to one-half (1/2) full with clean water. Start agitation. Add correct quantity of Surflan 0.25 A.S., continue agitation and finish filling the tank. Maintain agitation from mixing through application.

If you see a buildup of material on the walls of the spray tank, wash the tank with soapy water between fillings. Rinse and continue the spraying operation. Clean the tank, lines, and screens thoroughly after use.

Application

Ground Application: Apply Surflan 0.25 A.S. as a directed spray to the soil surface or as an overtop spray. Apply Surflan 0.25 A.S. in sufficient water per acre to uniformly treat the area. Use only a properly calibrated, low-pressure herbicide sprayer that will apply the spray uniformly. Use herbicide tips and screens no finer than 50 mesh in nozzle and in-line strainers. As the amount of water used (spray volume) decreases, the importance of accurate calibration and uniform application increases. Check the sprayer daily to ensure proper calibration and uniform application. Maintain agitation from mixing through application. Avoid boom overlaps that will increase rates above those recommended.



Activation and Cultivation

Surflan 0.25 A.S. will remain stable on the soil surface up to 21 days. In the absence of timely rainfall, irrigation can be used to move Surflan 0.25 A.S. into soil surface. A one-half (1/2) inch rain or its equivalent in sprinkler irrigation is necessary to activate Surflan 0.25 A.S. If weeds begin to emerge due to lack of rainfall or irrigation, shallow cultivate (1 to 2 inches) to destroy existing weeds or remove by hand in containers and place Surflan 0.25 A.S. in the weed germination zone. Shallow cultivation (1 to 2 inches) will not reduce herbicidal effectiveness. If Surflan 0.25 A.S. is not activated by rainfall, irrigation or cultivation within 21 days of application, erratic weed control may result.

Recommended Species

Surflan 0.25 A.S. may be used on the Following Ornamental Plant Species:

Common Name	Scientific Name
abelia, glossy	<i>Abelia grandiflora</i>
apple	<i>Malus</i> spp.
arborvitae, Giant	<i>Thuja plicata</i>
arborvitae, Oriental	<i>Platycladus orientalis</i>
azalea	<i>Rhododendron</i> spp.
barberry, Japanese	<i>Berberis thunbergii</i>
begonia	<i>Begonia semper florans</i>
bird of paradise	<i>Strelitzia reginae</i>
bottlebrush, lemon	<i>Callistemon citrinus</i>
boxwood, common	<i>Buxus sempervirens</i>
boxwood, Japanese	<i>Buxus microphylla japonica</i>
brush cherry	<i>Syzygium paniculata</i>
California laurel	<i>Umbellularia californica</i>
cape marigold	<i>Dimorphotheca</i> spp.
cherry, Mahaleb	<i>Prunus mahaleb</i>
cherry, sweet	<i>Prunus avium</i>
chrysanthemum, florists	<i>Chrysanthemum morifolium</i>
cleysera, Japanese	<i>Cleyera japonica</i>
cotoneaster, bearberry	<i>Cotoneaster dammeri</i>
cotoneaster, brightbead	<i>Cotoneaster buxifolius</i>
cotoneaster, cranberry	<i>Cotoneaster apiculatus</i>
cotoneaster, Pyrenees	<i>Cotoneaster congestus</i>
cotoneaster, rock	<i>Cotoneaster horizontalis</i>
cotoneaster, rockspray	<i>Cotoneaster microphyllus</i>
coyotebush, dwarf	<i>Baccharis pilularis</i>
crape Myrtle, common	<i>Lagerstroemia indica</i>
cryptomeria, Japanese	<i>Cryptomeria japonica</i>
cypress, Italian	<i>Cupressus sempervirens</i>
daisy, trailing African	<i>Osteospermum fruticosum</i>
douglasfir	<i>Pseudotsuga taxifolia</i>
eastercactus	<i>Rhipsalidopsis gaertneri</i>
escallonia	<i>Escallonia exoniensis</i>
eucalyptus, mealy	<i>Eucalyptus cinerea</i>
eucalyptus, narrow-leaved	<i>Eucalyptus nicholii</i>
eucalyptus, red	<i>Eucalyptus sideroxylon</i>
euonymus, evergreen	<i>Euonymus japonica</i>
euonymus, stringybark	<i>Euonymus fortunei</i>
euonymus, winged	<i>Euonymus alata</i>
falsecypress, Lawson	<i>Chamaecyparis lawsoniana</i>
fatshedera	<i>Fatshedera lizei</i>
fir, alpine	<i>Abies lasiocarpa</i>



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fir, balsam	<i>Abies balsamea</i>
fir, fraser	<i>Abies fraseri</i>
fir, grand	<i>Abies grandis</i>
fir, Vietch	<i>Abies veitchi</i>
fir, white	<i>Abies concolor</i>
firethorn	<i>Pyracantha, fortuneana</i>
firethorn, formosa	<i>Pyracantha skoidzumi</i>
firethorn, scarlet	<i>Pyracantha coccinea</i>
forsythia, border	<i>Forsythia intermedia</i>
gazania, trailing	<i>Gazania rigens leucolaena</i>
geranium (Pelargonium)	<i>Pelargonium hortorum</i>
ginkgo	<i>Ginkgo biloba</i>
hibiscus, Chinese	<i>Hibiscus rosa-sinesis</i>
holly, Chinese	<i>Ilex cornuta</i>
holly, English	<i>Ilex aquifolium</i>
holly, Japanese	<i>Ilex crenata</i>
honeysuckle, Japanese	<i>Lonicera japonica</i>
hopseedbush, clammy	<i>Dodonaea viscosa</i>
ice plant	<i>Mesembryanthemum crystallinum</i>
(See precautions for ornamental plantings)	
ice plant, largeleaf	<i>Carpobrotus edulis</i>
(See precautions for ornamental plantings)	
ivy, Algerian	<i>Hedera canariensis</i>
ivy, English	<i>Hedera helix</i>
jerseytea, redroot	<i>Ceanothus americanus</i>
juniper	<i>Juniperus spp.</i>
laurelcherry, Carolina	<i>Prunus caroliniana</i>
laurelcherry, English	<i>Prunus laurocerasus</i>
leucothoe, coast	<i>Leucothoe axillaris</i>
leucothoe, drooping	<i>Leucothoe fontanesiana</i>
lilac, common	<i>Syringa vulgaris</i>
lily, plantain	<i>Hosta spp.</i>
lilyturf, bigblue	<i>Liriope muscari</i>
lily-of-the-Nile	<i>Agapanthus africanus</i>
linden, little leaf	<i>Tilia cordata</i>
magnolia, Southern	<i>Magnolia grandiflora</i>
manzanita, Stanford	<i>Arctostaphylos stanfordiana</i>
maple	<i>Acer spp.</i>
marigold	<i>Tagetes spp.</i>
mockorange	<i>Philadelphus spp.</i>
moss, rose	<i>Portulaca grandiflora</i>
myoporum, prostrate	<i>Myoporum parvifolium</i>
myrtle, true	<i>Myrtus communis</i>
oak <i>Quercus</i> spp.	
oleander	<i>Nerium oleander</i>
orange, ornamental	<i>Citrus spp.</i>
oregon grape	<i>Mahonia aquifolium</i>
osmanthus, holly-leaf	<i>Osmanthus heterophyllus</i>
palo verde, blue	<i>Cercidium floridum</i>
pansy	<i>Viola wittrockiana</i>
pear	<i>Pyrus communis</i>
pecan, ornamental	<i>Carya spp.</i>
periwinkle, bigleaf	<i>Vinca major</i>
periwinkle, dwarf	<i>Vinca minor</i>
petunia	<i>Petunia spp.</i>



photinia	<i>Photinia fraseri</i>
pine	<i>Pinus</i> spp.
pittosporum	<i>Pittosporum</i> spp.
privet, amur	<i>Ligustrum amurense</i>
privet, glossy	<i>Ligustrum lucidum</i>
privet, golden	<i>Ligustrum vicaryi</i>
privet, Japanese	<i>Ligustrum japonicum</i>
protea	<i>Protea neriifolia</i>
ranunculus, Persian	<i>Ranunculus asiaticus</i>
redbud	<i>Cercis canadensis</i>
redcedar, eastern	<i>Juniperus virginiana</i>
redcedar, western	<i>Thuja plicata</i>
redwood, coast	<i>Sequoia sempervirens</i>
raphiolepis (India hawthorn)	<i>Raphiolepis indica</i>
rhododendron	<i>Rhododendron</i> spp.
rose	<i>Rosa</i> spp.
rose-of-Sharon (Shrubalthea)	<i>Hibiscus syriacus</i>
Russian olive	<i>Elaeagnus angustifolia</i>
sage	<i>Salvia</i> spp.
shrimp plant	<i>Justicia brandegeana</i>
snapdragon	<i>Antirrhinum majus</i>
sotol, desert spoon	<i>Dasyllirion wheeleri</i>
spruce, black	<i>Picea mariana</i>
spruce, Colorado	<i>Picea pungens</i>
spruce, Englemann	<i>Picea englemanni</i>
spruce, Norway	<i>Picea abies</i>
spruce, white	<i>Picea glauca</i>
star jasmine, Chinese	<i>Trachelospermum jasminoides</i>
stonecrop	<i>Sedum brevifolium</i>
sumac, African	<i>Rhus lancea</i>
sweetgum, American	<i>Liquidambar styraciflua</i>
sweet William	<i>Dianthus barbatus</i>
tobira	<i>Pittosporum tobira</i>
trumpet vine, violet	<i>Clytostoma callistegioides</i>
viburnum, Laurustinus	<i>Viburnum tinus</i>
virburnum, Sandankwa	<i>Virburnum suspensum</i>
weigela, oldfashioned	<i>Weigela florida</i>
wintercreeper	<i>Euonymus fortunei</i>
xylosma, Japanese	<i>Xylosma congestum</i>
yarrow	<i>Achillea</i> spp.
yaupon	<i>Ilex vomitoria</i>
yew <i>Taxus media</i>	
yew, Japanese	<i>Taxus cuspidata</i>
yewpine	<i>Podocarpus macrophyllus</i>
yucca, pendulous	<i>Yucca recurvifolia</i>
yucca, soaptree	<i>Yucca elata</i>
zinnia, common	<i>Zinnea elegans</i>

Surflan 0.25 A.S. may be used on the Following Container-Grown Plant Species:

Common Name	Scientific Name
andromeda	<i>Pieris japonica</i>
arborvitae, American	<i>Thuja occidentalis</i>
arborvitae, Oriental	<i>Platycladus orientalis</i>
astilbe/false spirea	<i>Astilbe chinensis</i> and <i>A. chinensis</i> hybrids



barberry, Japanese
 bellflower
 blazing star
 bleeding heart
 bottlebrush, lemon
 boxwood, common
 brush cherry
 cleystera, Japanese
 cotoneaster, bearberry
 cotoneaster, cranberry
 cotoneaster, parney
 cotoneaster, rock
 crape Myrtle, common
 cryptomeria, Japanese
 cypress, Arizona
 cypress, Italian
 daylily
 dogwood, kousa
 eastercactus
 escallonia
 euonymus, evergreen
 euonymus, stringybark
 fatshedera
 firethorn
 firethorn, formosa
 firethorn, scarlet
 gardenia
 ginkgo
 holly, Chinese
 holly, Japanese
 jerseytea, redroot
 juniper
 kumquat
 lilac, common
 lilyturf, bigblue
 lily-of-the-Nile
 linden, little leaf
 mockorange
 myrtle, true
 oak *Quercus* spp.
 oleander
 orange, ornamental
 pecan, ornamental
 photinia
 pine
 pittosporum
 privet, amur
 privet, glossy
 privet, golden
 privet, Japanese
 redbud
 raphiolepis (India hawthorn)
 rhododendron
 russian olive
 shrimp plant
 spruce, Colorado

Berberis thunbergii
Campanula elatines
Liatris spicata
Dicentra spectabilis
Callistemon citrinus
Buxus sempervirens
Syzygium paniculata
Cleyera japonica
Cotoneaster dammeri
Cotoneaster apiculatus
Cotoneaster lacteus
Cotoneaster horizontalis
Lagerstroemia indica
Cryptomeria japonica
Cupressus arizonica (glabra)
Cupressus sempervirens
Hemerocallis spp.
Cornus kousa
Rhipsalidopsis gaertneri
Escallonia exoniensis
Euonymus japonica
Euonymus fortunei
Fatshedera lizei
Pyracantha, fortuneana
Pyracantha skoidzumi
Pyracantha coccinea
Gardenia jasminoides
Ginkgo biloba
Ilex cornuta
Ilex crenata
Ceanothus americanus
Juniperus spp.
Fortunella spp.
Syringa vulgaris
Liriope muscari
Agapanthus africanus
Tilia cordata
Philadelphus spp.
Myrtus communis

Nerium oleander
Citrus spp.
Carya spp.
Photinia fraseri
Pinus spp.
Pittosporum spp.
Ligustrum amurense
Ligustrum lucidum
Ligustrum vicaryi
Ligustrum japonicum
Cercis canadensis
Raphiolepis indica
Rhododendron spp.
Elaeagnus angustifolia
Justicia brandegeana
Picea pungens



sumac, African
 sweetgum, American
 trumpet vine, violet
 viburnum, Laurustinus
 wintercreeper
 yaupon
 yucca, soaptree

Rhus lancea
Liquidambar styraciflua
Clytostoma callistegioides
Viburnum tinus
Euonymus fortunei
Ilex vomitoria
Yucca elata

Precaution

Ice Plant: When establishing unrooted ice plant on coarse soils in landscape plantings, use only the 1.5 pint of Surflan 0.25 A.S. or crop injury may occur. After the ice plant is well established, a second application may be made.

Broadcast Application Rates

Labeled Use Site	Length of Control	Surflan 0.25 A.S.	Minimum Time Between Applications (months)	Total Amount Allowed Per Year (pt/1000 sq ft)
		(pt/1000 sq ft)		
Landscape ornamentals	2 - 4 months	1.1 to 1.5	2	5.9
	3 - 6 months	2.2	4	8.8
	4 - 8 months	3	4	8.8
Field-grown and container-grown ornamentals	2 - 4 months	1.5	3	5.9
	3 - 6 months	2.2	3	6.6
	4 - 8 months	3	3	8.8

Southern Turfgrass Areas

Surflan 0.25 A.S. is a preemergence herbicide, which is applied to established Southern turf including bahiagrass, bermudagrass, centipedegrass, established tall fescue, St. Augustinegrass and zoysiagrass for the control of annual grasses and some broadleaf weeds. Surflan 0.25 A.S. works by controlling weeds as the seeds germinate.

Surflan 0.25 A.S. will not harm nearby established ornamental trees and shrubs. Do not apply Surflan 0.25 A.S. on golf course putting greens.

General Use Precautions and Restrictions for Southern Turfgrass

Surflan 0.25 A.S. will not control established weeds.

Surflan 0.25 A.S. may injure turf that is under weakened conditions due to degree of establishment or winter climatic conditions. Apply Surflan 0.25 A.S. to healthy, established turf only.

Use Surflan 0.25 A.S. only as a part of a total turf management program that includes good fertilization practices.

Surflan 0.25 A.S. should not be applied in the spring or summer to tall fescue turfgrass reseeded the previous fall. In bermudagrass areas that have been overseeded with winter grasses, a spring application of Surflan 0.25 A.S. will thin the overseeded grasses.

Surflan 0.25 A.S. should not be applied to newly sprigged areas of bermudagrass, St. Augustinegrass, centipedegrass or zoysiagrass until these turfs are well established.

Surflan 0.25 A.S. should not be applied to newly hydromulched areas of bermudagrass until these areas are well established.

Do not spray Surflan 0.25 A.S. in combination with atrazine on turf.



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Areas planted with bermudagrass variety "Sun Turf" in Northern Oklahoma have shown sensitivity to Surflan 0.25 A.S. treatments.

Do not apply Surflan 0.25 A.S. on golf course putting greens.

Grasses Controlled by Surflan 0.25 A.S.

Summer Annuals

Common Name	Scientific Name
barley, little	<i>Hordeum pusillum</i>
barnyardgrass (watergrass)	<i>Echinochloa crus-galli</i>
bluegrass, annual (poa)	<i>Poa annua</i>
brachiaria (signalgrass)	<i>Brachiaria</i> spp.
browntop panicum	<i>Panicum fasciculatum</i>
crabgrass	<i>Digitaria</i> spp.
(large crabgrass)	
(smooth crabgrass)	
crowfootgrass	<i>Dactyloctenium aegyptium</i>
cupgrass	<i>Eriochloa gracilis</i>
downy brome	<i>Bromus tectorum</i>
fall panicum	<i>Panicum dichotomiflorum</i>
(spreading panicgrass)	
foxtails	<i>Setaria</i> spp.
(bottlegrass)	
(bristlegrass)	
(giant foxtail)	
(green foxtail)	
(pigeongrass)	
(robust foxtail)	
(yellow foxtail)	
guineagrass	<i>Panicum maximum</i>
(narrowleaf panicum)	
johnsongrass (seedling only)	<i>Sorghum halepense</i>
junglerice	<i>Echinochloa colonum</i>
lovegrass, Mexican	<i>Eragrostis mexicana</i>
lovegrass, orcutt	<i>Eragrostis orcuttiana</i>
oat, wild	<i>Avena fatua</i>
ryegrass, annual (Italian)	<i>Lolium multiflorum</i>
sandbur, field	<i>Cenchrus incertus</i>
sprangletop, red	<i>Leptochloa filiformis</i>
Texas panicum	<i>Panicum texanum</i>
(buffalograss)	
(coloradograss)	
witchgrass	<i>Panicum capillare</i>

Winter Annuals

Common Name	Scientific Name
bluegrass, annual	<i>Poa annua</i>

Broadleaf Weeds Controlled by Surflan 0.25 A.S.

Summer Annuals

Common Name	Scientific Name
carpetweed	<i>Mollugo verticillata</i>
knotweed, prostrate	<i>Polygonum aviculare</i>
purslane, common	<i>Portulaca oleracea</i>



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Winter Annuals

Common Name	Scientific Name
chickweed, common	Stellaria media
henbit	Lamium amplexicaule

Broadleaf Weeds Partially Controlled by Surflan 0.25 A.S.

Common Name	Scientific Name
groundsel, common	Senecio vulgaris
spurge, prostrate	Euphorbia humistrata
woodsorrel, yellow	Oxalis stricta

Surflan 0.25 A.S. will not control established weeds.

General Use Directions

Rates, Frequency and Timing of Application

Successful preemergence control of the annual grass weeds listed on this label requires proper timing of application.

Apply Surflan 0.25 A.S. prior to the germination of annual grass weeds. All summer annual grasses do not germinate at the same time. If application timing does not coincide with the normal germination period of any of the annual grass weeds listed on this label, weed control results may be erratic or poor. In the absence of timely rainfall, irrigation can be used to move Surflan 0.25 A.S. into the soil surface. Any cultural practices that disturb the soil, such as aerification or verticutting, should be done prior to application of Surflan 0.25 A.S.

Application Rates, Number of Applications Allowed and Minimum Interval between Applications:

Warm Season Turf Areas	Surflan 0.25 A.S.		Minimum Time Between Applications (months)	Total Amount Allowed Per Year (pt/1000 sq ft)
	(pt/1000 sq ft)	(fl oz/1000 sq ft)		
All, except Florida	1.1 – 1.5	18 - 24	3	4.4
Florida	1.1	18	3	3.3

Application Directions

Surflan 0.25 A.S. can be applied in the spring for summer annual grass and broadleaf weed control, and in the fall for *Poa annua* and winter annual broadleaf weed control. Do not apply more than 1.1 pt (18 fl oz)/1000 sq ft per application in the state of Florida.

1. Spring Germinating Summer Annual Grasses and Broadleaf Weeds

For preemergence control, apply 1.5 pints (24 ounces) Surflan 0.25 A.S. per 1000 square feet per acre in late winter or early spring prior to the onset of conditions favorable for annual weed grass germination.

For application to smaller areas, apply the following amounts of Surflan 0.25 A.S.:

Amount Per 100 sq. ft.	Amount Per 500 sq. ft.	Amount Per 1000 sq. ft.
2 1/2 oz	12 1/2 oz	24 oz

2. Annual Bluegrass (*Poa Annua*) and Broadleaf Winter Annuals

In areas of heavy infestation of annual bluegrass, its elimination will temporarily result in thin turfgrass areas. Proper fertilization, irrigation and soil incorporated reseeding will encourage existing desirable



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turfgrasses and newly planted seedling turfgrasses to fill in these thin areas previously occupied by annual bluegrass. For preemergence control, apply 18 ounces Surflan 0.25 A.S. per 1000 square feet in the late summer or early fall prior to the expected germination of annual bluegrass and broadleaf winter annual weeds.

For application to smaller areas, apply the following amounts of Surflan 0.25 A.S.:

Amount Per 100 sq. ft.	Amount Per 500 sq. ft.	Amount Per 1000 sq. ft.
1 ³ / ₄ OZ	8 ³ / ₄ OZ	18 oz

Application Equipment

Apply Surflan 0.25 A.S. evenly over the turfgrass areas without skips, misses, or overlaps. For best results use equipment designed to apply liquid herbicides and insecticides. Calibrate application equipment prior to use, according to the manufacturer's directions. Check frequently to be sure equipment is working properly and distributing spray uniformly.

Surflan 0.25 A.S. is an orange chemical. No marker dyes are needed as this orange characteristic will serve as a marker dye.

Reseeding

Chemicals that effectively control annual weeds may also affect new desirable turfgrass seedlings. Reseeding should be delayed for at least 90-120 days after applying Surflan 0.25 A.S.. When reseeding, it is essential that proper cultural practices such as soil cultivation, irrigation and fertilization be followed. For satisfactory reseeding results after using Surflan 0.25 A.S., the amount of seed used should be increased and equipment designed to place seed in contact with the soil (such as the Rogers Aero Seeder) should be employed.

Noncropland Areas

Surflan 0.25 A.S. plus Roundup and many other labeled herbicides may be used to control undesirable vegetation in noncropland areas such as roadsides, rights-of-way, etc. When applied according to use directions, these tank mixes will provide control of susceptible weed species listed on the respective product labels. Refer to tank mix product labels for specific use directions, precautions, and limitations before use.

Broadcast Application Rates

Labeled Use Site	Length of Control	Surflan 0.25 A.S. (pt/1000 sq ft)	Minimum Time Between Applications	Total Amount Allowed Per Year
			(months)	(pt/1000 sq ft)
Noncropland	2 - 4 months	1.5	2	4.4
	6 - 8 months	3	4	8.8
	8 - 12 months	4.4	8	8.8

—Warranty Disclaimer

United Phosphorus Inc. (UPI) 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. UPI 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. Plant injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to



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label instructions (including conditions noted on the label, such as unfavorable temperature, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of UPI or the seller. All such risks shall be assumed by Buyer.

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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 UPI's 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.

UPI shall not be liable for losses or damages resulting from handling or use of this product unless UPI is promptly notified of such loss or damage in writing. In no case shall UPI be liable for consequential or incidental damages or losses.

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**IMPORTANT INFORMATION
READ BEFORE USING PRODUCT**

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