

Specialty Products  
Supplemental Labeling



DowElanco

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**Surflan\* A.S. Herbicide**

EPA Reg. No. 62719-113

**Revised Protective Equipment Requirements and Directions  
for Use of Handheld or Backpack Sprayer Equipment**

**ATTENTION**

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This labeling must be in the possession of the user at the time of application.
- Read the label affixed to the container for Surflan A.S. before applying. Carefully follow all precautionary statements and applicable use directions.
- Use of Surflan A.S. according to this supplemental labeling is subject to all use precautions and limitations imposed by the label affixed to the container for Surflan A.S. except as described below.

**Revised Protective Equipment Requirements**

Protective equipment specified in the "Precautionary Statements" section of the Surflan A.S. label have been revised to read: **Mixer/loader/applicators must wear eye protection. Protective clothing such as coveralls and/or a long-sleeved shirt, shoes, and impermeable gloves should be worn when handling this product.**

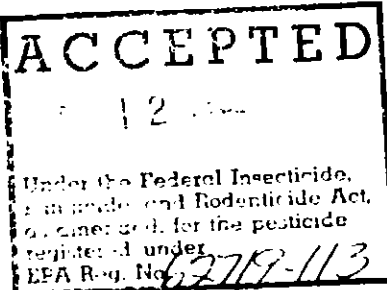
**Handheld or Backpack Sprayer Application**

Apply Surflan A.S. at a rate of 1.5 to 3 ounces per 1,000 square feet. The amount of water used to apply Surflan is not critical, but should be sufficient for uniform treatment of the target area. Calibrate by determining the volume of water required to treat 1,000 square feet. Use this calibration volume to determine the amount of water and Surflan needed to treat the target area (see following table). **Note:** Sprayer calibration (volume of spray needed to treat 1,000 square feet) will vary with each individual operator.

Length of Control	Application Rate (fl oz per 1000 sq ft)	Quantity of Water Needed
2 to 4 months	1.5	The amount required by your sprayer to cover 1,000 sq ft of area
4 to 8 months	3.0	

**Sample Calculation:**

- Size of target area ÷ 1,000 X Application rate = Amount of Surflan A.S. required
- Size of target area ÷ 1,000 X Calibration volume per 1,000 sq ft = Amount of water required



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123-T1PAGXXX Approved   /  /    
Initial printing.

**Amendments**

- 1) Revised protective equipment requirements and addition of use directions for handheld and backpack sprayer application.

# Specimen Label



# Surflan\*

A.S.

## Specialty Herbicide

A selective preemergence surface-applied herbicide for control of annual grasses and many broadleaf weeds in:

- Landscape Ornamentals
- Container Grown Ornamentals
- Field Grown Ornamentals
- Drainage Areas Under Greenhouse Benches
- Ornamental Bulbs
- Ground Covers
- Christmas Tree Plantations
- Noncropland
- Non-bearing Trees and Vines
- Industrial Sites
- Established Warm Season Turf (including Bahiagrass, Bermudagrass, Buffalograss, Centipedegrass, St. Augustinegrass, Tall Fescue and Zoysiagrass)

### Active Ingredient:

oryzalin: 3,5-dinitro- <i>N</i> <sup>4</sup> <i>N</i> <sup>4</sup> -dipropyl-sulfanilamide .....	40.4%
Inert Ingredients .....	59.6%
Total .....	100.0%

Contains 4.0 pounds of active ingredient per gallon

EPA Registration No. 62719-113  
EPA Est. No. 37429-GA-01  
Net Contents - 2.5 gal

## Precautionary Statements

Hazards to Humans and Domestic Animals

Keep Out of Reach of Children

### CAUTION PRECAUCION:

Precaucion al usuario: Si usted no lee inglés, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

**Causes eye irritation. Harmful if swallowed, inhaled or absorbed through the skin. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. Surflan A.S. may cause skin sensitization reactions in certain individuals. Mixer/loader/applicators must wear eye protection and protective clothing consisting of coveralls, a long sleeved shirt, shoes, and impermeable gloves when handling this product. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.**

### First Aid

**If in eyes:** Flush with plenty of water. Get medical attention if irritation develops.

**If on skin:** Wash with plenty of soap and water. Get medical attention if irritation develops.

**If swallowed:** Do not induce vomiting. Call a physician or Poison Control Center. If available, administer activated charcoal (6-8 heaping teaspoonsfuls) with a large quantity of water. Do not give anything by mouth to an unconscious person. Immediately transport to a medical care facility and see a physician.

**If inhaled:** Remove individual to fresh air. Get medical attention if breathing difficulty occurs. If not breathing, give artificial respiration, preferably cardiopulmonary resuscitation and get medical attention immediately.

### Environmental Hazards

Do not apply directly to water, 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 washwaters or rinsate. Cover or incorporate spills.

**Notice:** Read the entire label before using. Use only according to label directions.

**Before buying or using this product, read "Warranty Disclaimer" and "Limitation of Remedies" elsewhere on this label.**

In Case of Emergency endangering life or property involving this product, call collect 517-636-4400

**Specialty Chemical** — Do not ship or store with food, feeds, drugs or clothing

# Surflan\* A.S.

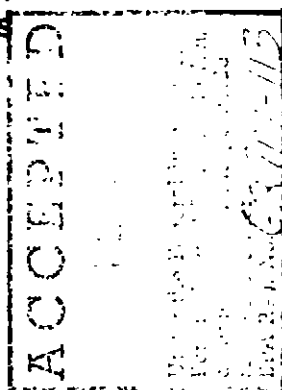


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## Directions for Use

- It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.
- Read All Directions Carefully Before Applying

### STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.  
**Storage:** 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.  
**Container Disposal:** 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.

**BEST AVAILABLE COPY**

## General Information

Surflan A.S. is a preemergence surface-applied herbicide for the control of annual grasses and many broadleaf weeds in ornamental plantings, bulbs, ground covers, established warm-season turfgrass, Christmas tree plantations, non-bearing trees and vines, non-cropland and industrial sites.

**Shake Well Before Using.**

### General Use Precautions

Surflan A. S. will not control emerged weeds. Poor weed control may result if directions are not followed. Over-application may result in crop injury or excessive soil residue.

Surflan A. S. is orange in color and may cause temporary discoloration of sprayed surfaces. If this discoloration is undesirable, it may be altered by using a commercially available colorant such as Blazon or removed by spraying surface with water or washing with an industrial cleaner immediately after application. Surflan A. S. may also be applied with mulch colorants, such as Mulch Magic or Nu-Mulch.

Users who wish to use Surflan A.S. on plant species not recommended on this label may determine the suitability for such uses by treating a small number of such plants at a recommended rate. Prior to treatment of larger areas, the treated plants should be observed for any sign of herbicidal injury for 30 to 60 days to determine if the treatment is noninjurious to the target plant species. The user assumes responsibility for any plant damage or other liability resulting from use of Surflan A.S. on plant species not recommended on this label.

**Chemigation:** Do not apply this product through any type of irrigation system.

### Soil Preparation

Surflan A. S. will not control emerged weeds. Therefore, areas to be treated should be free of emerged weeds. Weed residues, prunings and trash should be thoroughly mixed into the soil or removed prior to treatment. In field applications, the soil should be in good tilth and free of clods at the time of application.

### Mixing Directions

#### Surflan A. S. Alone

Make sure spray tank is clean and use only clean water. Fill spray tank 1/2 to 3/4 full. Start agitation and add the required amount of Surflan A.S. Continue agitation and finish filling the spray tank. Maintain continuous agitation until application is completed.

#### Surflan A. S. Tank-Mix Combinations

Prior to mixing, read and carefully follow all label instructions and precautions for each product added to the tank mixture. Vigorous, continuous agitation is required for all Surflan A. S. tank mixes. Sparger pipe agitators generally provide the best agitation in spray tanks. ~~Feaming may be prevented by placing the end of the fill pipe below the surface of the water in the spray tank.~~

**Precaution:** Do not allow the spray mixture to siphon back into the water source.

**Mixing Order:** Fill the tank 3/4 full with clean water. Start agitation and add different formulation types in the order indicated below, allowing time for complete mixing and dispersion after addition of each product. Allow extra mixing and dispersion time for dry flowable products.

Add different formulation types in the following order: dry flowables (DF); wettable powders (WP); Surflan A. S. and other aqueous suspensions (AS); flowables (F) and liquids (L); solutions (S); and emulsifiable concentrates (EC).

Continue agitation and finish filling the spray tank with clean water. Maintain agitation until application is completed. If spraying and agitation must be stopped before the spray tank is empty, the materials may settle to the bottom. Settled materials must be completely resuspended before spraying is continued. A sparger agitator is particularly useful for this purpose.

**Premixing:** When tank mixing, initial mixing and dispersion of certain dry flowable or wettable powder products may be improved by premixing with water (slurrying). Adding the slurried material to the spray tank through a 20 or 35 mesh wetting screen will help assure good initial dispersion. Line screens in the tank should be no finer than 50 mesh (100 mesh is finer than 50 mesh).

## Application Methods

**Ground Application:** Apply Surflan A. S. as a directed spray to the soil surface or overtop of plants using a vehicle-mounted, pull-type, or backpack sprayer. Apply the appropriate rate of Surflan A. S. as outlined in "Approved Uses" section of this label. In all cases, use sufficient water volume to obtain uniform coverage and deliver the desired rate of Surflan A. S. to the treated area. The volume of water used is not critical, as long as the desired rate of Surflan A. S. is delivered uniformly across the area treated. When calibrating, determine the volume of water delivered by the sprayer to a given area (1,000 sq ft, acre, etc.). Then mix the desired rate of Surflan A. S. in the amount of water required to cover the entire area to be treated. Use only a properly calibrated, low-pressure herbicide sprayer that will apply the spray uniformly. Use herbicide tips with screens no finer than 50 mesh in nozzles 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 continuous agitation from mixing through application. Avoid spray pattern skips and overlaps that may result in incomplete coverage or over-application.

**Aerial Application:** Use a standard aerial herbicide boom sprayer. Aerial spray equipment should be calibrated to apply the proper amount of Surflan A. S. alone or in tank mix combinations in 2 to 10 gallons of spray mixture per acre. Nozzle screens and in-line strainers should be no finer than 50 mesh. Surflan A. S. mixes readily with water for concentrate aerial sprays; however, constant vigorous agitation that sweeps the contents from the bottom of the spray tank up into the main body of the liquid is required to maintain a uniform suspension until the spray tank is empty. Avoid spray pattern skips and overlaps that may result in incomplete coverage or over-application. Do not apply when wind conditions favor drift from the target area.

**Equipment Cleaning:** If a buildup of material occurs on the walls of the spray tank, it should be removed between fillings by washing with soap and water and rinsing thoroughly. Tanks, lines, screens and nozzles should be cleaned thoroughly after each use.

**Activation and Cultivation:** Surflan A. S. will remain stable on the soil surface up to 21 days following application. In the absence of timely rainfall, irrigation can be used to activate Surflan A. S. A minimum of one-half (1/2) inch of rain or its equivalent in sprinkler irrigation is necessary to activate Surflan A. S.. If weeds begin to emerge due to lack of rainfall or irrigation, shallow cultivate 1 to 2 inches deep to destroy existing weeds or remove them by hand. Shallow cultivation to a depth of 1 to 2 inches will enhance herbicidal effectiveness. If Surflan A. S. is not activated by rainfall, irrigation or cultivation within 21 days of application or existing weeds have not been removed, erratic weed control may result.

## Weeds Controlled by Surflan A. S.

### Annual Grasses:

<u>Common Name</u>	<u>Scientific Name</u>
Barley, little	<i>Hordeum pusillum</i>
Barnyardgrass (Watergrass)	<i>Echinochloa crus-galli</i>
Bluegrass, annual	<i>Poa annua</i>
Crabgrass, large	<i>Digitaria sanguinalis</i>
Crabgrass, smooth	<i>Digitaria ischaemum</i>
Crowfootgrass	<i>Dactyloctenium aegyptium</i>
Cupgrass, Southwestern	<i>Eriochloa gracilis</i>
Foxtail, bristlegass	<i>Setaria magna</i>
Foxtail, giant	<i>Setaria faberi</i>
Foxtail, green (Pigeongrass)	<i>Setaria viridis</i>
Foxtail, robust	<i>Setaria robusta</i>
Foxtail, yellow	<i>Setaria glauca</i>
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 (Buffalograss) (Coloradograss)	<i>Panicum texanum</i>
Ryegrass, Italian	<i>Lolium multiflorum</i>
Sandbur, field	<i>Cenchrus incertus</i>
Signalgrass (Brachiana)	<i>Bracharia</i> spp.
Sprangletop, red	<i>Leptochloa filiformis</i>
Witchgrass	<i>Panicum capillare</i>

### Broadleaf Weeds:

<u>Common Name</u>	<u>Scientific Name</u>
Bittercress	<i>Cardamine oligosperma</i>
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>
Lambsquarters	<i>Chenopodium album</i>
Pigweed, prostrate	<i>Amaranthus blitoides</i>
Pigweed, redroot	<i>Amaranthus retroflexus</i>
Pigweed, spring	<i>Amaranthus hybridus</i>
Pigweed, tumble	<i>Amaranthus albus</i>
Puncturevine	<i>Tribulus terrestris</i>
Purslane, common	<i>Portulaca oleracea</i>
Pusley, Florida (Florida purslane) (Mexican clover) (Pusley)	<i>Richardia scabra</i>
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>

### Weeds Suppressed by Surflan A.S.

Control 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, and amount and timing of soil moisture.

<u>Common Name</u>	<u>Scientific Name</u>
Horseweed	<i>Conyza canadensis</i>
Ladysthumb	<i>Polygonum persicaria</i>
Lettuce, prickly	<i>Lactuca serriola</i>
Mallow, common	<i>Malva neglecta</i>
Milkweed, climbing	<i>Sarcostemma cynanchoides</i>
Morningglory	<i>Ipomoea</i> spp.
Mustard, black	<i>Brassica nigra</i>
Mustard, wild	<i>Brassica kaber</i>
Nightshade, black	<i>Solanum nigrum</i>
Ragweed, common	<i>Ambrosia artemisiifolia</i>
Smartweed	<i>Polygonum pennsylvanicum</i>
Sowthistle, annual	<i>Sonchus oleraceus</i>
Spurge, spotted	<i>Euphorbia maculata</i>
Teaweed (prickly sida)	<i>Sida spinosa</i>
Velvetleaf	<i>Abutilon theophrasti</i>
Wheat, volunteer	<i>Triticum</i> spp.

Best used in conjunction with other weed control methods.

## Approved Uses

### Ornamental Plantings

#### Precautions:

Apply only to established plantings. Established plants are defined as those that have been transplanted into their growing location for a sufficient period of time to allow the soil to be firmly settled around the roots from packing and rainfall or irrigation.

Do not apply Surtlan A.S. to either nursery seedbeds or forest or Christmas tree seedling transplant beds.

Rooted liners should be removed from their original growing containers and placed in new containers at least two weeks prior to treatment or injury may occur.

On container grown ornamentals where weed seed germination continues for extended periods of time, do not make repeat applications of Surtlan A.S. for at least 90 days or crop injury may occur.

Do not apply Surtlan A.S. in ornamental plantings where the likelihood of runoff onto lawn areas containing dichondra or cool season turfgrass exists as severe injury or death may occur.

For soils treated with Surtlan A.S. during the previous season, plant only the ornamental species listed on this label or injury may occur.

Do not apply Surtlan A.S. to Douglas fir (*Pseudotsuga menziesii*).

**Ice Plant:** When establishing unrooted ice plant (*Mesembryanthemum crystallinum* and *Carpobrotus edulis*) on coarse soils in landscape plantings, use only the 2 quart per acre rate of Surtlan A.S. or crop injury may occur. After the ice plant is well established, a second application may be made.

#### Broadcast Application Rates

Length of Control	Surtlan A.S.	
	quarts per acre	fl oz per 1000 sq ft
2 to 4 months	2	1.5
4 to 8 months	4	3

#### Recommended Species Including Fruit Plant Nursery Liners

Surtlan A.S. is recommended for use on certain container- and field grown established ornamental plants, trees and shrubs; established ground covers; field grown fruit tree and shrub nursery liners; and in the production of ornamental bulbs (See "Ornamental Bulbs" for special use directions).

#### Surtlan A. S. May be Used on the Following Field- and Liner- Grown Plants and Plants in Landscape Plantings:

† Plants transplanted for additional growth before transplanting to final growing location.

#### Common Name

Abelia, glossy  
Acacia, prostrate  
Agave  
Andromeda  
Apple  
Arboretum, American  
Arboretum, Oriental  
Ash

#### Scientific Name

*Abelia grandiflora*  
*Acacia redolens*  
*Agave macroculmis*  
*Pieris japonica*  
*Malus* spp.  
*Thuja occidentalis*  
*Platycladus orientalis*  
*Fraxinus* spp.

#### Field- and Liner-Grown Species, continued

Aster, Stokes  
Astilbe/false spirea

Azalea  
Baby's breath  
Barberry, Japanese  
Bellflower  
Birch, river  
Birch, white  
Bird of paradise  
Blazing star  
Bleeding heart  
Botanich, lemon  
Boxwood, common  
Boxwood, Japanese  
Brush cherry  
Caldium, fancy leaved  
California laurel  
Campanula (bellflower)  
Cape marigold  
Carpet bugle  
Cassia, feathery  
Cherry, Mahaleb  
Cherry, sweet  
Chrysanthemum, florists  
Cleyera, Japanese  
Coneflower, purple  
Coreopsis  
Cotoneaster, bearberry  
Cotoneaster, brightbead  
Cotoneaster, cranberry  
Cotoneaster, parney  
Cotoneaster, Pyrenees  
Cotoneaster, rock  
Cotoneaster, rock pray  
Cottonwood  
(grown for pulp)  
Coyotebush, dwarf  
Crape Myrtle, common  
Cryptomeria, Japanese  
Cypress, Arizona  
Cypress, Italian  
Daisy, gloriosa  
(black-eyed Susan)  
Daisy, painted  
Daisy, Shasta  
Daisy, trailing African  
Daylily  
Dogwood, flowering  
Dogwood, kousa  
Eastercactus  
Escallonia  
Eucalyptus, mealy  
Eucalyptus, narrow-leaved  
Eucalyptus, red  
Euonymus, evergreen  
Euonymus, stringybark  
Euonymus, winged  
Falsecypress, Lawson  
Fatshedera  
Fir, alpine  
Fir, balsam  
Fir, Fraser  
Fir, grand  
Fir, Vetch  
Fir, white  
Firethorn  
Firethorn, formosa  
Firethorn, scarlet  
Forsythia, border  
Geum  
Gardenia  
Gazania, trailing  
Geranium (Pelargonium)

*Stokesia laevis*  
*Astilbe chinensis* and  
*A. chinensis hybrids*

*Rhododendron* spp.  
*Gypsophila paniculata*  
*Berberis thunbergii*  
*Campanula elatines*  
*Betula nigra*  
*Betula pendula*  
*Strelitzia reginae*  
*Liatris spicata*  
*Dicentra spectabilis*  
*Callistemon citrinus*  
*Buxus sempervirens*  
*Buxus microphylla japonica*  
*Syzygium paniculata*  
*Calceolium bicolor*  
*Umbellularia californica*  
*Campanula* spp.  
*Dimorphotheca* spp.  
*Ajuga* spp.  
*Cassia artemisioides*  
*Prunus mahaleb*  
*Prunus avium*  
*Chrysanthemum monfolium*  
*Cleyera japonica*  
*Echinacea purpurea*  
*Coreopsis lanceolata*  
*Cotoneaster dammeri*  
*Cotoneaster buxifolius*  
*Cotoneaster apiculatus*  
*Cotoneaster lacteus*  
*Cotoneaster congestus*  
*Cotoneaster horizontalis*  
*Cotoneaster microphyllus*  
*Populus deltoides*

*Baccharis pilularis*  
*Lagerstroemia indica*  
*Cryptomeria japonica*  
*Cupressus arizonica (glabra)*  
*Cupressus sempervirens*  
*Rudbeckia hirta*

*Chrysanthemum coccineum*  
*Chrysanthemum maximum*  
*Osteospermum fruticosum*  
*Hemerocallis* spp.  
*Cornus florida*  
*Cornus kousa*  
*Rhipsalidopsis gaertneri*  
*Escallonia exoniensis*  
*Eucalyptus cinerea*  
*Eucalyptus nicholii*  
*Eucalyptus sideroxylon*  
*Euonymus japonica*  
*Euonymus fortunei*  
*Euonymus alata*  
*Chamaecyparis lawsoniana*  
*Fatshedera lizei*  
*Abies lasiocarpa*  
*Abies balsamea*  
*Abies fraseri*  
*Abies grandis*  
*Abies verticillata*  
*Abies concolor*  
*Pyracantha, fortuneana*  
*Pyracantha skoldzumii*  
*Pyracantha coccinea*  
*Forsythia intermedia*  
*Geum quellyon*  
*Gardenia jasminoides*  
*Gazania rigens leucolaena*  
*Pelargonium hortorum*

## Field- and Liner-Grown Species, continued

Gaum	<i>Gaum quellyon</i>
Ginkgo	<i>Ginkgo biloba</i>
Garden gladiolus	<i>Gladiolus hortulanus</i>
Goldenrain tree	<i>Koelerutera paniculata</i>
Heavenly bamboo (Nandina)	<i>Nandina domestica</i>
Hibiscus, Chinese	<i>Hibiscus rosa-sinensis</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>
Honeysuckle, Mexican	<i>Justicia spicigera</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)	
Impatiens (Busy lizzie)	<i>Impatiens wallerana</i>
Iris, bearded	<i>Iris spp.</i>
Ivy, Algerian	<i>Hedera canariensis</i>
Ivy, English	<i>Hedera helix</i>
Jerseytree, redroot	<i>Ceanothus americanus</i>
Juniper	<i>Juniperus spp.</i>
Kumquat	<i>Fortunella spp.</i>
Laurel, mountain	<i>Kalmia latifolia</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 spp.</i>
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 spp.</i>
Pittosporum	<i>Pittosporum spp.</i>
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>
Red Cedar, Western	<i>Thuja plicata</i>
Redwood, coast	<i>Sequoia sempervirens</i>
Rhaphiolepis (India hawthorn)	<i>Rhaphiolepis indica</i>
Rhododendron	<i>Rhododendron spp.</i>
Rose	<i>Rosa spp.</i>

## Field- and Liner-Grown Species, continued

Rose-of-Sharon (Shrubbythea)	<i>Hibiscus synacus</i>
Russian olive	<i>Elaeagnus angustifolia</i>
Sage	<i>Salvia spp.</i>
Shrimp plant	<i>Justicia brandegeana</i>
Snapdragon	<i>Antirrhinum majus</i>
Sotol, desert spoon	<i>Dasylinon wheeleri</i>
Spruce, black	<i>Picea mariana</i>
Spruce, Colorado	<i>Picea pungens</i>
Spruce, Englemann	<i>Picea engelmanni</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>
Viburnum, Sandankwa	<i>Viburnum suspensum</i>
Weigela, oldfashioned	<i>Weigela florida</i>
Wintercreeper	<i>Euonymus fortunei</i>
Xylosma, Japanese	<i>Xylosma congestum</i>
Yarrow	<i>Achillea spp.</i>
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>Zinnia elegans</i>

## Surflan A. S. May be Used on the Following Container-Grown Plants:

### Common Name

Andromeda  
Arborvitae, American  
Arborvitae, Oriental  
Astilbe/false spirea  
Barberry, Japanese  
Bellflower  
Blazing star  
Bleeding heart  
Bottlebrush, lemon  
Boxwood, common  
Brush cherry  
Cleyera, Japanese  
Cotoneaster, bearberry  
Cotoneaster, cranberry  
Cotoneaster, parney  
Cotoneaster, rock  
Crape Myrtle, common  
Cryptomena, Japanese  
Cypress, Arizona  
Cypress, Italian  
Daylily  
Dogwood, kousa  
Eastercactus  
Escallonia

### Scientific Name

*Platanus japonica*  
*Thuja occidentalis*  
*Platycladus orientalis*  
*Astilbe chinensis* and  
*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*  
*Cryptomena japonica*  
*Cupressus arizonica (glabra)*  
*Cupressus sempervirens*  
*Hemerocallis spp.*  
*Cornus kousa*  
*Rhipsalidopsis gaertneri*  
*Escallonia exoniensis*

## Container-Grown Species, continued

Euonymus, evergreen  
 Euonymus, stringybark  
 Fatsyhedera  
 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  
 Oleander  
 Orange, ornamental  
 Pecan, ornamental  
 Photinia  
 Pine  
 Pittosporum  
 Privet, amur  
 Privet, glossy  
 Privet, golden  
 Privet, Japanese  
 Redbud  
 Rhamphiolepis (India hawthorn)  
 Rhododendron  
 Russian olive  
 Shrimp plant  
 Spruce, Colorado  
 Sumac, African  
 Sweetgum, American  
 Trumpet vine, violet  
 Viburnum, Laurustinus  
 Wintercreeper  
 Yaupon  
 Yucca, soaptree

Euonymus japonica  
 Euonymus fortunei  
 Fatsyhedera 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  
 Quercus spp.  
 Nerium oleander  
 Citrus spp.  
 Carya spp.  
 Photinia fraseri  
 Pinus spp.  
 Pittosporum spp.  
 Ligustrum amurense  
 Ligustrum lucidum  
 Ligustrum vicaryi  
 Ligustrum japonicum  
 Cercis canadensis  
 Rhamphiolepis indica  
 Rhododendron spp.  
 Elaeagnus angustifolia  
 Justicia brandegeana  
 Picea pungens  
 Rhus lancea  
 Liquidambar styraciflua  
 Chytostoma callistegioides  
 Viburnum tinus  
 Euonymus fortunei  
 Ilex vomitoria  
 Yucca elata

Surflan A. S. tank mixes will provide control of susceptible weed species listed on the respective labels. Refer to tank mix product labels for specific use directions, precautions and limitations before use.

**Surflan A.S. Plus Roundup:** Tank mix combinations of Surflan A. S. plus Roundup are recommended to control existing undesirable vegetation. Applied as directed, Surflan A. S. plus Roundup will provide post-emergence control of susceptible weed species listed on the Roundup label and residual preemergence control of susceptible weed species listed on the Surflan A.S. label. Refer to the Roundup label for specific use directions, precautions and limitations before use.

### Precautions:

Do not apply sprays containing Roundup over the top of ornamental plants.

Extreme care must be exercised to prevent contact of Roundup-containing sprays with foliage and stems of turfgrasses, trees, shrubs, or other desirable vegetation since severe damage or death may result.

**Note:** If spraying with Roundup in areas adjacent to desirable plants, use a shield to prevent spray from contacting foliage and stems of desirable plants.

## Ornamental Bulbs

Surflan A. S. may be applied for control of susceptible annual weeds in ornamental bulbs, e.g., bulbous iris, daffodil (narcissus), hyacinth and tulip. Apply Surflan A. S. to the soil surface 2 to 4 weeks after planting, but prior to the emergence of annual weeds. For fall planted bulbs, apply Surflan A. S. again in late winter or early spring to weed-free soil surfaces.

### Precautions:

Do not apply to tulip plants that have emerged to a height greater than 3/4 inch.

Do not apply to gladioli corms prior to emergence or less than one inch in diameter.

## Broadcast Application Rates

Time of Application	Soil Texture	Surflan A. S.	
		quarts per acre	fl oz per 1000 sq ft
Fall	Coarse	0.75	0.5
Fall	Medium and Fine	1.5	1.0
Feb. - March	All Soil Textures	0.75	0.5

## Surflan A. S. May be Used on the Following Field Grown Fruit Plant Nursery Liners†:

Almond	Grapefruit	Pear
Apple	Kiwi	Pecan
Apricot	Lemon	Pistachio
Avocado	Macadamia Nut	Plum
Cherry	Nectarine	Pomegranate
Fig	Olive	Prune
Filbert	Orange	Walnut, English
Grape		

### Small Fruits:

Blackberry	Currant	Gooseberry
Blueberry	Dewberry	Loganberry
Boysenberry	Elderberry	Raspberry

† Plants transplanted for additional growth before transplanting to final growing location.

### Tank Mix Combinations

Tank mix combinations of Surflan A. S. plus Roundup, and many other labeled herbicides may be used to control undesirable vegetation in ornamental areas. Surflan A.S. may also be tank mixed with Gallery\* herbicide and applied preemergence to broaden the spectrum of broadleaf weed control in ornamental areas. Applied as directed, these

## Greenhouse Areas

Surflan A.S. may be applied to drainage areas under benches in open greenhouse-type structures. Do not apply in enclosed greenhouses or in enclosed shadehouse-type structures. Do not apply within three weeks prior to enclosure in greenhouse-type structures.

## Christmas Tree Plantations

### Surflan A. S. Alone

Apply Surflan A. S. as a directed spray to the soil surface or as an over-top spray to established plantings of field grown Christmas tree species, including fir (*Abies* spp.), pine (*Pinus* spp.), and spruce (*Picea* spp.). Do not apply to Douglas-fir (*Pseudotsuga menziesii*). Do not apply to seedbeds or seedling transplant beds. Apply only to established plantings. Established plants are defined as those that have been transplanted into their final growing location for a sufficient period of time to allow the soil to be firmly settled around the roots from packing and rainfall or irrigation. Follow all instructions provided in the "General Information" section of this label.

Broadcast Application Rates		
Length of Control	Surflan A.S.	
	quarts per acre	fl oz per 1000 sq ft
2 to 4 months	2	1.5
4 to 8 months	4	3

#### Tank-Mix Combinations

Tank-mix combinations of Surflan A. S. plus other labeled herbicides may be used as directed or overtop sprays in established Christmas tree plantings. 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.

**Surflan A. S./Roundup:** Apply tank mix combinations of Surflan A. S. plus Roundup only as directed sprays in Christmas tree plantings. When applied according to use directions, Surflan A. S. plus Roundup will provide postemergence control of susceptible weed species listed on the Roundup label and residual preemergence control of susceptible weed species listed on the Surflan A. S. label. Refer to the Roundup label for specific use directions, precautions and limitations before use.

#### Precautions:

Do not apply sprays containing Roundup over the top of Christmas tree plantings.

Extreme care must be exercised to avoid contact of spray containing Roundup with foliage and stems of Christmas trees or severe damage or death may result.

### Noncropland Areas and Industrial Sites

#### Noncropland Areas — Tank-Mix Combinations

Tank-mix combinations of Surflan A. S. plus Roundup and many other labeled herbicides may be used to control undesirable vegetation in noncropland areas. 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.

Length of Control	Surflan A.S.	
	quarts per acre	fl oz per 1000 sq ft
2 to 4 months	2	1.5
4 to 8 months	4	3
8 to 12 months	6	4.5

#### Industrial Sites — Tank-Mix Combinations

Tank-mix combinations of Surflan A. S. plus Roundup, Spike and many other labeled herbicides may be used as overtop sprays to control existing vegetation on industrial sites such as utility substations, highway guard rails, sign posts and delineators. 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.

### Warm Season Turfgrasses

#### General Information

Surflan A. S. may be applied as a preemergence treatment for control of annual grasses and certain broadleaf weeds in established warm season turf including bahiagrass, bermudagrass, buffalograss, centipedegrass, St. Augustinegrass and zoysiagrass or established tall fescue growing in warm season areas. Established turf is defined as a dense turf having a well-anchored root system and healthy, vigorous top growth. Surflan A. S. may be tank mixed with Gallery herbicide and applied preemergence to broaden the spectrum of broadleaf weed control in warm season turf. Refer to the Gallery label for specific use directions, precautions, and limitations before use.

#### Insert 3.

Successful preemergence control of weeds listed on this label requires that Surflan A. S. be applied prior to weed germination and be activated by at least one-half (1/2) inch of rainfall or irrigation within 21 days of application.

#### Precautions:

Surflan A. S. will not control emerged weeds.

Any cultural practices that disturb the soil, such as aeration or verticuring, should be done prior to application of Surflan A. S.

~~Do not apply Surflan A. S. to cool season turfgrass.~~

~~Do not apply Surflan A. S. to golf course putting greens or lawns containing dichondra or cool season turfgrass species as severe injury or death may occur.~~

Surflan A. S. may injure turf that is not well-established or is stressed (weakened due to unfavorable winter climatic conditions, drought, nematodes, or other factors which damage or weaken turf root systems). Apply Surflan A. S. only to healthy, well-established turf that has a well-anchored root system.

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

Do not apply Surflan A. S. in the spring or early summer to tall fescue turfgrass reseeded the previous fall. In such cases, apply Balan® 2.5G granular herbicide at 60 to 80 pounds per acre in early summer (Round 1) and Surflan A. S. at 1.5 quarts per acre approximately eight weeks later (Round 2). Do not apply Surflan A. S. at the single application rate (2 quarts per acre) to established tall fescue; in such cases, apply 1.5 quarts per acre of Surflan A. S. in an initial application, followed by a second application of 1.5 quarts per acre 8 to 10 weeks later.

In bermudagrass areas that have been overseeded with winter grasses, a spring application of Surflan A. S. will thin the overseeded grasses.

~~Do not apply Surflan A. S. to newly sprigged or seeded areas of bermudagrass, St. Augustinegrass, centipedegrass or zoysiagrass until these turfs are well established and have well anchored root systems.~~

~~Do not apply Surflan A. S. to newly hydromulched areas of bermudagrass until these areas are well established.~~

~~Areas planted to bermudagrass var. "Sun-Turf" in northeastern Oklahoma have shown sensitivity to Surflan A. S. that has been tank mixed with atrazine.~~

### Annual Grasses Controlled by Surflan A. S.

#### Summer Annuals:

Common Name	Scientific Name
Barnyardgrass	<i>Echinochloa crus-galli</i>
(Watergrass)	
Crabgrass, large	<i>Digitaria sanguinalis</i>
Crabgrass, smooth	<i>Digitaria ischaemum</i>
Crabgrass	<i>Digitaria spp.</i>
Crowfootgrass	<i>Dactyloctenium aegyptium</i>
Foxtail, bristleglass	<i>Setaria magna</i>
Foxtail, giant	<i>Setaria fabae</i>
Foxtail, green	<i>Setaria viridis</i>
(Pigeongrass)	
Foxtail, robust	<i>Setaria robusta</i>
Foxtail, yellow	<i>Setaria glauca</i>
Goosegrass	<i>Elysiene indica</i>
(Silver crabgrass)	
Johnsongrass	<i>Sorghum halepense</i>
(Seeding only)	
Ryegrass, Italian	<i>Lolium multiflorum</i>
Sandbur, field	<i>Cenchrus incertus</i>



## Winter Annuals:

### Common Name

Bluegrass, annual

### Scientific Name

*Poa annua*

## Annual Broadleaf Weeds Controlled by Surflan A. S.

## Summer Annuals:

### Common Name

Carpetweed

Knotweed, prostrate

Purslane, common

### Scientific Name

*Mollugo verticillata*

*Polygonum aviculare*

*Portulaca oleracea*

## Winter Annuals:

### Common Name

Chickweed, common

Henbit

### Scientific Name

*Stellaria media*

*Lamium amplexicaule*

## Broadleaf Weeds Suppressed by Surflan A.S.

### Common Name

Groundsel, common

Spurge, prostrate

Woodsorrel, yellow

### Scientific Name

*Senecio vulgaris*

*Euphorbia humistrata*

*Oxalis stricta*

## Application Rates, Frequency and Timing of Application

Surflan A. S. can be applied in the spring for summer annual grass and broadleaf weed control, and in the fall for annual bluegrass (*Poa annua*) and winter annual broadleaf weed control.

### 1. Summer Annual Grasses and Broadleaf Weeds

**Single Application Program:** Apply 2 quarts per acre of Surflan A.S. per acre in late winter or early spring, prior to the onset of conditions favorable for annual weed germination.

**Split Application Program:** As an alternative to a single application program, Surflan A.S. may be applied in a split application. This program is desirable when the initial application is made well in advance of weed germination and where weed control is desired for a longer period of time. Apply 1.5 quarts per acre of Surflan A.S. in an initial application, followed by a second application of 1.5 quarts per acre 8 to 10 weeks later.

The second treatment of the split application may follow application of a different preemergence grass herbicide in place of the initial Surflan A.S. application.

### 2. Annual Bluegrass (*Poa annua*) and Winter Annual Broadleaf Weeds

In areas of heavy annual bluegrass infestation, its elimination will result in temporary thinning of turfgrass cover. Proper fertilization, irrigation and soil incorporated reseeding should be employed to speed the restoration of desirable turfgrass cover in areas previously occupied by annual bluegrass (See section on reseeding).

Apply Surflan A. S. as a preemergence treatment in late summer or early fall, prior to the expected germination period for annual bluegrass and winter annual broadleaf weeds. If annual bluegrass infestation is severe and its elimination will result in thinning of turfgrass cover, apply Surflan A.S. at 1.5 quarts per acre. If thinning of turfgrass cover is not a potential problem, Surflan A.S. may be applied at 2 quarts per acre.

## Broadcast Application Rates

Surflan A.S.	
quarts per acre	fl oz per 1000 sq ft
1.5	1
2	1.5

**Weed Control In Florida:** In Florida, apply 1.5 quarts per acre of Surflan A.S. three times per year, or every 90 to 100 days, in the fall, early spring, and early summer. Do not apply more than 1.5 quarts per acre of Surflan A.S. in any single application.

### Application Equipment

Apply Surflan A. S. evenly over the turfgrass area. Avoid spray pattern skips and overlaps that may result in incomplete coverage or over-application. For best results use application equipment designed to uniformly broadcast liquid herbicides. Calibrate application equipment prior to use, according to manufacturer's directions. Check equipment frequently to make sure it is working properly and distributing spray uniformly.

### Reseeding

Herbicides that control annual weeds may also affect establishment of desirable turfgrass seedlings. Reseeding should be delayed for at least 90-120 days following application of Surflan A. S.. When reseeding, it is essential that proper cultural practices such as soil cultivation and seedbed preparation, irrigation and fertilization be followed. For satisfactory reseeding results following Surflan A. S. use, the seeding rate should be increased and equipment designed to place seed in full contact with soil (such as the Rogers Aero Seeder) should be employed.

## WARRANTY DISCLAIMER

DowElanco 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. DowElanco 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 the label instructions (including conditions noted on the label, such as unfavorable temperatures, 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 DowElanco or the seller. All such risks shall be assumed by the buyer.

## LIMITATION OF REMEDIES

The exclusive remedy for losses or damages resulting from the use of this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at DowElanco'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.

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

The terms of the Warranty Disclaimer above and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of DowElanco or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

DowElanco  
Quad IV, 9002 Purdue Road  
Indianapolis, Indiana 46268-1189, U S A

### Revisions:

- 1) General editing to clarify use directions.
- 2) Equipment cleaning instructions added.
- 3) Added instructions for cleaning treated surfaces and use of masking colorants.
- 4) Added instructions to determine plant tolerance for treatment of species not listed on label.
- 5) Added detailed definition of what constitutes "established plantings".
- 6) Use on nursery seedbeds and forest and Christmas tree nursery transplant beds prohibited.
- 7) Added prohibition of use on Douglas fir.
- 8) Added cottonwood trees grown for pulp to species list for treatment.
- 9) Revised weeds controlled list.
- 10) Revised ornamental species lists and provided separate lists for field and liner grown versus container grown species.
- 11) Tank mix with Gallery herbicide added.
- 12) Revised use directions for Christmas tree plantations.
- 13) Added use around "Greenhouse Areas".
- 14) Revised definition of "established turf".
- 15) Use on golf course putting greens and lawns containing dichondra prohibited.
- 16) Revised use directions and application rates for warm season turf-grasses.

### Amendments

- 1) Revised precautions for ornamentals and warm season turf.
- 2) Additional species added to "do not treat list" for ornamentals.
- 3) New wetlands statement added to Environmental Hazards section.
- 4) "To prevent foaming ..." statement deleted from Mixing Directions.

**Surflan A.S. Inserts**  
(EPA Reg. No. 62719-113)

**Insert 1.**

To avoid possible injury, do not apply Surflan A.S. to:

- Either nursery seedbeds or forest or Christmas tree seedling transplant beds.
- Unrooted liners or cuttings that have been planted in pots for the first time.
- Pots less than four inches wide.
- Ground covers until they are established and well rooted.
- Ornamental plantings where there is likelihood of runoff onto lawn areas.
- Areas containing dichondra or cool season turfgrass species.

**Insert 2.**

Do not apply Surflan A.S. to the following plant species when container grown or field grown or injury may occur:

- Deutzia gracilis* (slender deutzia)
- Pseudotsuga menziesii* (Douglas-fir)
- Thuja occidentalis* 'Techny' (Techny arborvitae)
- Tsuga canadensis* (eastern hemlock)

**Insert 3.**

To avoid possible injury, do not apply Surflan A.S. to:

- Cool season turfgrass species.
- Golf course putting greens or tees or lawns containing dichondra or cool season turfgrass species.
- Newly sprigged or sodded areas of bermudagrass, St. Augustinegrass, centipedegrass, or zoysiagrass until these turfs are well-established and have well-anchored root systems.
- Newly hydromulched areas of bermudagrass until such areas are well-established.
- Bermudagrass variety "Sun Turf" when tank mixed with atrazine.