**GROUP 3 HERBICIDE**

**Surflan WDG (Specialty Herbicide)**

A selective preemergence surface-applied herbicide for control of annual grasses and many broadleaf weeds in:
- Landscape ornamentals
- Non-bearing trees and vines
- Field grown ornamentals
- Industrial sites
- Drainage areas under greenhouse benches
- Established warm season turf
- Ornamental bulbs
- Ground covers
- Christmas tree plantations
- St. Augustinegrass, Tall Fescue and Zoysia grass
- Noncropland

**Active Ingredient:**
- Oryzalin: 3,5-dinitro-N, N'-dipropylsulfanilamide 85.0%
- Other Ingredients: 15.0%
- Total: 100.0%

Contains 0.85 pounds of active ingredient per pound of product.

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

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

**Notice:** Read the entire label. Use only according to label directions. Before buying or using this product, read Conditions of Sale and Limitation of Warranty and Liability inside label booklet.

For emergency medical assistance, contact the Rocky Mountain Poison Control Center at 1-800-438-6071. For chemical emergency: spill, leak, fire, exposure, or accident, call CHEMTREC 1-800-424-9300.

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

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION**

Causes Moderate Eye Irritation • Prolonged or frequently repeated skin contact may result in skin sensitization.

Avoid contact with eyes, skin or clothing.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Applicators and other handlers must wear:
- Long-sleeved shirt and long pants
- Chemical-resistant gloves
- Shoes plus socks

**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.

**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.

If on skin: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish. 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.

**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 24 hours. Exception: If the product is soil-injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

Workers may enter treated areas without required PPE during the reentry interval following 1/2 to 1 inch of rainfall or irrigation provided that they are performing tasks that do not involve contact with the soil subsurface, otherwise, 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
- Shoes plus socks

**NON-AGRICULTURAL USE REQUIREMENTS**

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

**Entry Restrictions for Non-WPS Uses:** Keep all persons, children and pets out of treated area until sprays have dried.

**GENERAL INFORMATION**

Surflan WDG Specialty Herbicide 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.

**GENERAL USE PRECAUTIONS AND RESTRICTIONS**

Surflan WDG 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 WDG 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 WDG may also be applied with mulch colorants, such as Mulch Magic or Nu-Mulch.

Users who wish to use Surflan WDG 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 non-injurious to the target plant species. The user assumes responsibility for any plant damage or other liability resulting from use of Surflan WDG on plant species not recommended on this label.

**Activation and Cultivation**

Surflan WDG 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 WDG. A minimum of one-half (1/2) inch of rain or its equivalent in sprinkler irrigation is necessary to activate Surflan WDG.

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 WDG 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. Do not graze or feed forage from treated areas to livestock.

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

**SOIL PREPARATION**

Surflan WDG 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 WDG Alone
Make sure spray tank is clean. Fill spray tank 1/4 full with clean water. Start agitation. Vigorous, continuous agitation throughout the spray tank is required with water dispersible granule (WDG) formulations. Add the correct amount of Surflan WDG to the spray tank in a controlled manner to aid in mixing and dispersion and to prevent clogging of screens and outlet ports. Maintain continuous agitation from mixing through application.

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

Surflan WDG Tank Mix Combinations
Vigorous continuous agitation is required for all tank mixes of Surflan WDG. Sprayer pipe agitators generally provide the best agitation in spray tanks. To prevent foaming, keep the end of the fill pipe below the surface of the water in the spray tank during filling to prevent air from being stirred or splashed into the mixture.

Mixing Order: Fill the tank 1/4 full with clean water, start agitation and add the correct amount of Surflan WDG as described above. Fill the spray tank to about 90 percent of final spray volume. Add other formulations 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 fl owable or water dispersible granule formulations.

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

Maintain continuous agitation during mixing, fl ing and throughout application. 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 sprayer agitator is particularly useful for this purpose. Settled materials may be more diff icult to resuspend than when originally mixed.

Premixing: When tank mixing, fi nal mixing and dispersion of certain dry fl owable or wettable powder products may be improved by premixing with water (slurrying). Where recommend-
ed, follow product label instructions for each material. Adding the slurred material to the spray tank through an entering screen will help assure good initial dispersion. Line screens in the tank should be no fi ner than 50 mesh (100 mesh is fi ner than 50 mesh).

APPLICATION METHODS

Ground Application
Apply Surflan WDG as a directed spray to the soil surface or over top of plants using a vehicle-mounted, pull-type, or backpack sprayer. Apply the appropriate rate of Surflan WDG as outlined in “Labeled Use Sites” section of this label. In all cases, use sufficient water volume to obtain uniform coverage and deliver the desired rate of Surflan WDG to the treated area. The volume of water used is not critical, as long as the desir ed rate of Surflan WDG 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 WDG 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 fi ner 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.

WEEDS CONTROLLED BY SURFLAN WDG SPECIALTY HERBICIDE

Annual Grasses:

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hordeum pusillum</td>
<td>barley, little barnyardgrass (watergrass)</td>
</tr>
<tr>
<td>Digitaria sanguinalis</td>
<td>bluegrass, annual crabgrass, large crabgrass, smooth crowfootgrass</td>
</tr>
<tr>
<td>Echinochloa crus-galli</td>
<td>Sisymbrium irio</td>
</tr>
<tr>
<td>Poa annua</td>
<td>ladysthumb</td>
</tr>
<tr>
<td>Digitaria ischaemum</td>
<td>lettuce, prickly milkweed, climbing morningglory</td>
</tr>
<tr>
<td>Dactylolium aegyptium</td>
<td>mustard, black mustard, wild nightshade, black ragweed, common smartweed</td>
</tr>
<tr>
<td>Eriochloa gracilis</td>
<td>sowthistle, annual spurge, spotted teaweed (prickly sida) velvetleaf</td>
</tr>
<tr>
<td>Setaria faberi</td>
<td>wheat</td>
</tr>
<tr>
<td>Setaria viridis</td>
<td>volunteer</td>
</tr>
<tr>
<td>Setaria robusta</td>
<td>Erodium cicutarium</td>
</tr>
<tr>
<td>Setaria glauca</td>
<td>stinkweed</td>
</tr>
<tr>
<td>Edeos indica</td>
<td>pholistoma</td>
</tr>
<tr>
<td>Chenopodium album</td>
<td>lambsquarters</td>
</tr>
<tr>
<td>Malva neglecta</td>
<td>ladysthumb</td>
</tr>
<tr>
<td>Conyza canadensis</td>
<td>lamb's quarters</td>
</tr>
<tr>
<td>Cenchrus incertus</td>
<td>knapweed</td>
</tr>
<tr>
<td>Setaria glauca</td>
<td>foxtail, green</td>
</tr>
<tr>
<td>Setaria viridis</td>
<td>foxtail, giant</td>
</tr>
<tr>
<td>Euphorbia maculata</td>
<td>spurge, spotted shepherdspurse</td>
</tr>
<tr>
<td>Portulaca oleracea</td>
<td>purslane, common woodsorrel, yellow</td>
</tr>
<tr>
<td>Erodium moschatum</td>
<td>filaree, whitestem</td>
</tr>
<tr>
<td>Senecio vulgaris</td>
<td>filaree, redstem</td>
</tr>
<tr>
<td>Stellaria media</td>
<td>pursley, Florida (Florida purslane) (Mexican clover) (pussley) rocket, London rockpurslane, desert shepherdspurse spurge, prostrate woodsorrel, yellow</td>
</tr>
<tr>
<td>Mollugo verticillata</td>
<td>bittercress, carpetweed chickweed, common fiddleneck, coast filaree, redstem filaree, whitestem groundsel, common henbit mallow, common lambsquarters pigweed, prostrate pigweed, redroot pigweed, spring pigweed, tumble puncturevine purslane, common pursley, Florida pursley, Florida (Florida purslane) (Mexican clover) (pussley) rocket, London rockpurslane, desert shepherdspurse spurge, prostrate woodsorrel, yellow</td>
</tr>
</tbody>
</table>

Broadleaf Weeds:

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardamine oleracea</td>
<td>sowthistle, common smartweed</td>
</tr>
<tr>
<td>Mullugo verticillata</td>
<td>teaweed (prickly sida) velvetleaf</td>
</tr>
<tr>
<td>Stellaria media</td>
<td>wheat</td>
</tr>
<tr>
<td>Amsinckia intermedia</td>
<td>lucerne, clover</td>
</tr>
<tr>
<td>Erodium cicutarium</td>
<td>stinkweed</td>
</tr>
<tr>
<td>Senecio vulgaris</td>
<td>lambsquarters</td>
</tr>
<tr>
<td>Lamium amplexicaule</td>
<td>henbit</td>
</tr>
<tr>
<td>Chenopodium album</td>
<td>mesquite</td>
</tr>
<tr>
<td>Amaranthus biloboides</td>
<td>amaranth</td>
</tr>
<tr>
<td>Amaranthus retroflexus</td>
<td>amaranth</td>
</tr>
<tr>
<td>Amarantus hybridus</td>
<td>amaranth</td>
</tr>
<tr>
<td>Tribulus terrestris</td>
<td>amaranth</td>
</tr>
<tr>
<td>Portulaca oleracea</td>
<td>purslane, common woodsorrel, yellow</td>
</tr>
<tr>
<td>Atriplex litoralis</td>
<td>purslane, common woodsorrel, yellow</td>
</tr>
<tr>
<td>Oxalis stricta</td>
<td>purslane, common woodsorrel, yellow</td>
</tr>
</tbody>
</table>

Labeled Use Sites: Special Use Precautions:

Apply only to established plantings. Established plants are de fi ned as those that have been transplanted into their growing location in a suffi cient period of time to allow the soil to be fi rmly settled around the roots from packing and rainfall or irrigation.

To avoid possible injury, do not apply Surflan WDG to:
- Either nursery forest or Christmas tree seedling transplant beds.
- Unrooted liners or cuttings that have been planted in pots for the fi rst time.
- Pots less than fi ve 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.

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 Surflan WDG for at least 90 days after crop injury may occur.

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

Ice Plant:

Mesembryanthemum crystallinum (pigeon grass) (pigeon grass) (pigeon grass) (pigeon grass) (pigeon grass)

WEEDS SUPPRESSED BY SURFLAN WDG SPECIALTY HERBICIDE

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:

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardamine oleracea</td>
<td>purslane, common woodsorrel, yellow</td>
</tr>
<tr>
<td>Mullugo verticillata</td>
<td>purslane, common woodsorrel, yellow</td>
</tr>
<tr>
<td>Stellaria media</td>
<td>purslane, common woodsorrel, yellow</td>
</tr>
<tr>
<td>Amsinckia intermedia</td>
<td>purslane, common woodsorrel, yellow</td>
</tr>
<tr>
<td>Erodium cicutarium</td>
<td>purslane, common woodsorrel, yellow</td>
</tr>
<tr>
<td>Senecio vulgaris</td>
<td>purslane, common woodsorrel, yellow</td>
</tr>
<tr>
<td>Lamium amplexicaule</td>
<td>henbit</td>
</tr>
<tr>
<td>Chenopodium album</td>
<td>mesquite</td>
</tr>
<tr>
<td>Amaranthus biloboides</td>
<td>amaranth</td>
</tr>
<tr>
<td>Amaranthus retroflexus</td>
<td>amaranth</td>
</tr>
<tr>
<td>Amarantus hybridus</td>
<td>amaranth</td>
</tr>
<tr>
<td>Tribulus terrestris</td>
<td>amaranth</td>
</tr>
<tr>
<td>Portulaca oleracea</td>
<td>purslane, common woodsorrel, yellow</td>
</tr>
<tr>
<td>Atriplex litoralis</td>
<td>purslane, common woodsorrel, yellow</td>
</tr>
<tr>
<td>Oxalis stricta</td>
<td>purslane, common woodsorrel, yellow</td>
</tr>
</tbody>
</table>

Labeled Use Sites: Special Use Precautions:

Apply only to established plantings. Established plants are de fi ned as those that have been transplanted into their growing location in a suffi cient period of time to allow the soil to be fi rmly settled around the roots from packing and rainfall or irrigation.

To avoid possible injury, do not apply Surflan WDG to:
- Either nursery forest or Christmas tree seedling transplant beds.
- Unrooted liners or cuttings that have been planted in pots for the fi rst time.
- Pots less than fi ve 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.

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 Surflan WDG for at least 90 days after crop injury may occur.

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

Ice Plant: When establishing unrooted ice plant (Mesembryanthemum crystallinum) and Carpodacus edulis) on coarse soils in landscape plantings, use only the 2 quart per acre rate of Surflan WDG or crop injury may occur. After the ice plant is well established, a second
Surflan WDG May be Used on the Following Field- and Liner†-Grown Plants and
grown or injury may occur:

**Handheld or Backpack Sprayer Application**
Apply Surflan WDG at a rate of 1 to 2 ounces per 1200 square feet. The amount of water used to apply Surflan WDG is not critical, but should be sufficient for uniform treatment of the target area. Calibrate by determining the volume of water required to treat 1200 square feet. Use this calibration volume to determine the amount of water and Surflan WDG 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.

**Suggested Planting Rates**

<table>
<thead>
<tr>
<th>Length of Control</th>
<th>Application Rate (oz/1200 sq. ft.)</th>
<th>Quantity of Water Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 to 4 months</td>
<td>1</td>
<td>The amount required by your sprayer to cover 1200 sq. ft. of area.</td>
</tr>
<tr>
<td>4 to 8 months</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

Sample Calculation:
Size of target area ÷ 1200 x Application rate = Amount of Surflan WDG required

**Broadcast Application Rates**

<table>
<thead>
<tr>
<th>Length of Control</th>
<th>Application Rate</th>
<th>Quantity of Water Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 to 4 months</td>
<td>1</td>
<td>The amount required by your sprayer to cover 1200 sq. ft. of area.</td>
</tr>
<tr>
<td>4 to 8 months</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

**Recommended Species Including Fruit Plant Nursery Liners**

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

Do not apply Surflan WDG to the following plant species when contained grow or field grown or injured may occur:

- Deutzia gracilis (lilac)
- Pseudotsuga menziesii (Douglas-fir)
- Thuja occidentals (Arborvitae)
- Tsuga canadensis (eastern hemlock)

**Surflan WDG May Be Used on the Following Field- and Liner†-Grown Plants and Plants in Landscape Plantings:**

1Plants transplanted for additional growth before transplanting to final growing location.

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>abelia, glossy</td>
<td>Albertia grandiflora</td>
</tr>
<tr>
<td>acacia, prostrate</td>
<td>Acacia redolens</td>
</tr>
<tr>
<td>agave</td>
<td>Agave macrocactus</td>
</tr>
<tr>
<td>Andromeda apple</td>
<td>Piersi japonica</td>
</tr>
<tr>
<td>arborvitae, American</td>
<td>Malus spp.</td>
</tr>
<tr>
<td>arborvitae, Oriental</td>
<td>Thuja occidentals</td>
</tr>
<tr>
<td>ash</td>
<td>Platycladus orientals</td>
</tr>
<tr>
<td>aster, stokes</td>
<td>Fraxinus spp.</td>
</tr>
<tr>
<td>astilbe/false spirea</td>
<td>Stokesias laevis</td>
</tr>
<tr>
<td>azalea</td>
<td>Astilbe chinensis</td>
</tr>
<tr>
<td>baby's breath</td>
<td>Rhododendron spp.</td>
</tr>
<tr>
<td>barberry, Japanese</td>
<td>Gypsophila paniculata</td>
</tr>
<tr>
<td>bellflower</td>
<td>Berberis thunbergii</td>
</tr>
<tr>
<td>birch, river</td>
<td>Campanula latifolias</td>
</tr>
<tr>
<td>birch, white</td>
<td>Betula nigra</td>
</tr>
<tr>
<td>bird of paradise</td>
<td>Betula pendula</td>
</tr>
<tr>
<td>blazing star</td>
<td>Strelitzia reginae</td>
</tr>
<tr>
<td>bleeding heart</td>
<td>Lilium spicata</td>
</tr>
<tr>
<td>bottlebrush, lemon</td>
<td>Dicentra spectabilis</td>
</tr>
<tr>
<td>boxwood, common</td>
<td>Callistemon citrinus</td>
</tr>
<tr>
<td>boxwood, Japanese</td>
<td>Buxus sempervirens</td>
</tr>
<tr>
<td>brush cherry</td>
<td>Buxus microphylla japonica</td>
</tr>
<tr>
<td>caldium, fancy leafed</td>
<td>Syzygium paniculata</td>
</tr>
<tr>
<td>California laurel</td>
<td>Caladium bicolor</td>
</tr>
<tr>
<td>campanula (bellflower)</td>
<td>Umbellularia californica</td>
</tr>
<tr>
<td>cape margold</td>
<td>Campanula spp.</td>
</tr>
<tr>
<td>carpet bugle</td>
<td>Dicentra spectabilis</td>
</tr>
<tr>
<td>cassia, featherly</td>
<td>Ajuga spp.</td>
</tr>
<tr>
<td>cherry, Mahaleb</td>
<td>Cassia armenzoides</td>
</tr>
<tr>
<td>cherry, sweet</td>
<td>Prunus mahaleb</td>
</tr>
<tr>
<td>chrysanthemum, florists</td>
<td>Prunus avium</td>
</tr>
<tr>
<td>cleyera, Japanese</td>
<td>Chrysanthemum morifolium</td>
</tr>
<tr>
<td>coneflower, purple</td>
<td>Clevera japonica</td>
</tr>
<tr>
<td>coreopsis</td>
<td>Echinacea purpurea</td>
</tr>
<tr>
<td>cotoneaster, bearberry</td>
<td>Coreopsis lanceolata</td>
</tr>
<tr>
<td>cotoneaster, brightbead</td>
<td>Cotoneaster dammeri</td>
</tr>
<tr>
<td>cotoneaster, cranberry</td>
<td>Cotoneaster buxifolius</td>
</tr>
<tr>
<td>cotoneaster, parney</td>
<td>Cotoneaster acipulatus</td>
</tr>
<tr>
<td>cotoneaster, Pyrenees</td>
<td>Cotoneaster lacteus</td>
</tr>
<tr>
<td>cotoneaster, rock</td>
<td>Cotoneaster congestus</td>
</tr>
<tr>
<td>cotoneaster, rock spray</td>
<td>Cotoneaster horizontialis</td>
</tr>
<tr>
<td>cottonwood (grown for pulp)</td>
<td>Cotoneaster microphyllus</td>
</tr>
<tr>
<td>coyotebush, dwarf</td>
<td>Populus deltoides</td>
</tr>
<tr>
<td>grape Myrtle, common</td>
<td>Baccharis pilularis</td>
</tr>
<tr>
<td>cryptomeria, Japanese</td>
<td>Lagerstroemia indica</td>
</tr>
<tr>
<td>cypress, Arizona</td>
<td>Cryptomeria japonica</td>
</tr>
<tr>
<td>Cupressus arizonica (glabra)</td>
<td>Cupressus sempervirens</td>
</tr>
</tbody>
</table>

2Cupressus sempervirens
Rudbeckia hirta
Chrysanthemum coccineum
Chrysanthemum maximum
Oxeyeaster fruticosum
Hemericallis spp.
Cornus florida
Cornus kousa
Rhusginopeteris gaertnerii
Escallonia exoniensis
Eucalyptus cinerea
Eucalyptus nicholii
Eucalyptus sideroxylon
Euonymus japonica
Euonymus fortunei
Euonymus alata
Chaemaphyris lawsoniana
Fatshedera lizei
Abies lasiocarpa
Abies balsamea
Abies fraseriana
Abies grandis
Abies veitchii
Abies concolor
Pyracantha, fortuneana
Pyracantha skiodzumi
Pyracantha coccinea
Forsythia intermedia
Gardenia junos
Gazania rigens
Pelargonium hortorum
Geum quelion
Ginkgo biloba
Gladiolus hortulanus
Koelneritia paniculata
Nandina domestica
Hibiscus rosa-sinensis
Ilex cornuta
Ilex aquifolium
Ilex crenata
Lonicera japonica
Justicia spicigera
Dodonaea viscosa
Mesembyrenanthemum crystallinum
Carpobrotus edulis
Impatiens wallerana
Iris spp.
Hedera canariensis
Hevera helix
Ceanothus americanus
Juniperus spp.
Fortunella spp.
Kalmia latifolia
Prunus caroliniana
Prunus laurocerasus
Leucothoe axillaris
Leucothoe fontanesiana
Syringa vulgaris
Hosta spp.
Ligowe muscari
Agapanthus africanus
Tilia cordata
Magnolia grandiflora
Arctostaphylos stanfordiana
Acer spp.
Tagetes spp.
Philadelphus spp.
Portulaca grandiflora
Myoporum parvifolium
Myrtus communis
Quercus spp.
Nerium oleander
Citrus spp.
Mahonia aquifolium
Osmanthus heterophylus
Cercidium floridum
Viola wittrockiana
Pyrus communis
Carya spp.
Vincma major

(continued)
### Scientific Name

- **Scientific Name**: Vinca minor
- **Common Name**: periwinkle, dwarf
- **Scientific Name**: Petunia spp.
- **Common Name**: petunia
- **Scientific Name**: Photinia fraseri
- **Common Name**: pine
- **Scientific Name**: Pittosporum spp.
- **Common Name**: pittosporum
- **Scientific Name**: Ligustrum amurnese
- **Common Name**: privet, amur
- **Scientific Name**: Ligustrum lucidum
- **Common Name**: privet, glossy
- **Scientific Name**: Ligustrum vicaryi
- **Common Name**: privet, golden
- **Scientific Name**: Protea neriifolia
- **Common Name**: Japanese tree fern
- **Scientific Name**: Ranunculus asiaticus
- **Common Name**: ranunculus
- **Scientific Name**: Cercis canadensis
- **Common Name**: redbud
- **Scientific Name**: Cryptomeria japonica
- **Common Name**: cryptomeria, Japanese
- **Scientific Name**: Lagerstroemia indica
- **Common Name**: crape Myrtle, common
- **Scientific Name**: Cotoneaster lacteus
- **Common Name**: cotoneaster, parney
- **Scientific Name**: Cotoneaster apiculatus
- **Common Name**: cotoneaster, bearberry
- **Scientific Name**: Decies sempervirens
- **Common Name**: rhaphiolepis (India hawthorn)
- **Scientific Name**: Rhododendron spp.
- **Common Name**: rhododendron
- **Scientific Name**: Ilex cornuta
- **Common Name**: holly, Chinese
- **Scientific Name**: Ilex crenata
- **Common Name**: holly, Japanese
- **Scientific Name**: Juniperus spp.
- **Common Name**: juniper
- **Scientific Name**: Fortunella spp.
- **Common Name**: juniperum
- **Scientific Name**: Syringa vulgaris
- **Common Name**: lilac, common
- **Scientific Name**: Ligustrum amurnese
- **Common Name**: lillyturf, bigblue
- **Scientific Name**: Ligustrum lucidum
- **Common Name**: lilly-of-the-Nile
- **Scientific Name**: Ligustrum vicaryi
- **Common Name**: Linden, little leaf
- **Scientific Name**: Ligustrum japonicum
- **Common Name**: mockorange
- **Scientific Name**: Myrtus communis
- **Common Name**: myrtle, true
- **Scientific Name**: Citrus spp.
- **Common Name**: oak
- **Scientific Name**: Carya spp.
- **Common Name**: orange, ornamental
- **Scientific Name**: Elaeagnus angustifolia
- **Common Name**: pecan, ornamental
- **Scientific Name**: Photinia fraseri
- **Common Name**: pine
- **Scientific Name**: Prunus spp.
- **Common Name**: privet, amur
- **Scientific Name**: Pittosporum spp.
- **Common Name**: privet, glossy
- **Scientific Name**: Ligustrum amurnese
- **Common Name**: privet, Japanese
- **Scientific Name**: Ligustrum lucidum
- **Common Name**: redcedar, western
- **Scientific Name**: Ginkgo biloba

### Broadcast Application Rates

<table>
<thead>
<tr>
<th>Time of Application</th>
<th>Soil Texture</th>
<th>Surflan WDG (lb./acre)</th>
<th>Minimum Time Between Applications (months)</th>
<th>Total Amount Allowed Per Year (lb./acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>Coarse</td>
<td>0.88</td>
<td>3</td>
<td>1.75</td>
</tr>
<tr>
<td>Fall</td>
<td>Medium and Fine</td>
<td>1.75</td>
<td>3</td>
<td>2.65</td>
</tr>
<tr>
<td>Feb. – March</td>
<td>All Soil Textures</td>
<td>0.88</td>
<td>3</td>
<td>2.65</td>
</tr>
</tbody>
</table>

**Surflan WDG May Be Used on the Following Field Grown Fruit Plant Nursery Liners:**

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

**Tank Mix Combinations**

Tank mix combinations of Surflan WDG plus glyphosate, and many other labeled herbicides may be used to control undesirable vegetation in ornamental areas. Surflan WDG 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 Surflan WDG 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 WDG plus Glyphosate:

Tank mix combinations of Surflan WDG plus glyphosate are recommended to control existing undesirable vegetation. Applied as directed, Surflan WDG plus glyphosate will provide postemergence control of susceptible weed species listed on the label for glyphosate and residual preemergence control of susceptible weed species listed on the label for Surflan WDG. Refer to the label for glyphosate for specific use directions, precautions and limitations before use.

### Precautions:

Do not apply sprays containing glyphosate over the top of ornamental plants. Extreme care must be exercised to prevent contact of sprays containing glyphosate with foliage and stems of turfgrasses, trees, shrubs, or other desirable vegetation since severe damage or death may result.

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

### Special Use Precautions:

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

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

### ORNAMENTAL BULBS

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

### Use to Precautions:

Surflan WDG is a postemergence herbicide containing glyphosate and is recommended for control of broadleaf weeds. Do not apply to gladiolus corms prior to emergence or less than one inch in diameter.
GREENHOUSE AREAS
Surflan WDG 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 WDG Alone
Apply Surflan WDG as a directed spray to the soil surface or as an overtop 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

<table>
<thead>
<tr>
<th>Length of Control</th>
<th>Surflan WDG (lb./acre)</th>
<th>Minimum Time Between Applications (months)</th>
<th>Total Amount Allowed Per Year (lb./acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 - 4 months</td>
<td>2.4</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>4 - 8 months</td>
<td>4.7</td>
<td>2</td>
<td>14</td>
</tr>
</tbody>
</table>

Tank Mix Combinations
Tank mix combinations of Surflan WDG 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 WDG plus Glyphosate: Apply tank mix combinations of Surflan WDG plus glyphosate only as directed sprays in Christmas tree plantings. When applied according to use directions, Surflan WDG plus glyphosate will provide postemergence control of susceptible weed species listed on the label for Surflan WDG. Refer to the glyphosate label for specific use directions, precautions and limitations before use.

Precautions:
Do not apply sprays containing glyphosate over the top of Christmas tree plantings.

Extreme care must be exercised to avoid contact of spray containing glyphosate 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 WDG plus glyphosate 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.

Industrial Sites — Tank Mix Combinations
Tank mix combinations of Surflan WDG plus glyphosate, 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 delimiters. 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
Surflan WDG 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 WDG 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 label for Gallery herbicide for specific use directions, precautions and limitations before use.

Successful preemergence control of weeds listed on this label requires that Surflan WDG 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.

Special Use Precautions:
To avoid possible injury, do not apply Surflan WDG 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 hydromulch-laid areas of bermudagrass until such areas are well-established.
- Bermudagrass variety “Sun Turf” when tank mixed with atrazine.

Surflan WDG will not control emerged weeds.

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

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

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

Do not apply Surflan WDG in the spring or early summer to tall fescue turfgrasses 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 WDG at 1.75 pounds per acre twelve weeks later (Round 2). Do not apply Surflan WDG at the single application rate (2.4 pounds per acre) to established tall fescue. In such cases, apply 1.75 pounds per acre of Surflan WDG in an initial application, followed by a second application of 1.75 pounds per acre 12 weeks later.

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

Annual Grasses Controlled by Surflan WDG Specialty Herbicide

<table>
<thead>
<tr>
<th>Summer Annuals:</th>
<th>Scientific Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>barnyardgrass</td>
<td>Digitaria sanguinalis</td>
</tr>
<tr>
<td>crabgrass</td>
<td>Echinochloa crus-galli</td>
</tr>
<tr>
<td>snowgrass</td>
<td>Digitaria ischaemum</td>
</tr>
<tr>
<td>rye grass</td>
<td>Dactyloctenium aegyptium</td>
</tr>
<tr>
<td>Italian rye grass</td>
<td>Setaria faberi</td>
</tr>
<tr>
<td>annual bluegrass</td>
<td>Setaria viridis</td>
</tr>
<tr>
<td>bluegrass</td>
<td>Setaria glauca</td>
</tr>
<tr>
<td>barnyardgrass</td>
<td>Eleusine indica</td>
</tr>
</tbody>
</table>

Annual Broadleaf Weeds Suppressed by Surflan WDG Specialty Herbicide

<table>
<thead>
<tr>
<th>Winter Annuals:</th>
<th>Scientific Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>chickweed</td>
<td>Capsella bursa-pastoris</td>
</tr>
<tr>
<td>henbit</td>
<td>Lamium amplexicaule</td>
</tr>
<tr>
<td>broadleaf weeds</td>
<td>Senecio vulgaris</td>
</tr>
<tr>
<td>Euphorbia hiumistrata</td>
<td></td>
</tr>
<tr>
<td>Oxalis stricta</td>
<td></td>
</tr>
</tbody>
</table>

Application Rates, Frequency and Timing of Application

Surflan WDG 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.
reseeding results following Surflan WDG use, the seeding rate should be increased and Surflan WDG. When reseeding, it is essential that proper cultural practices such as soil cul-

tion equipment designed to uniformly broadcast liquid herbicides. Calibrate application
equipment prior to use, according to manufacturer’s directions. Check equipment fre-
quently to make sure it is working properly and distributing spray uniformly.

Reseeding equipment designed to uniformly broadcast liquid herbicides. Calibrate application
equipment prior to use, according to manufacturer’s directions. Check equipment fre-
quently to make sure it is working properly and distributing spray uniformly.

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

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

Apply Surflan WDG 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 turf-
gress cover, apply Surflan WDG at 1.75 pounds per acre. If thinning of turfgrass cover is
not a potential problem, Surflan WDG may be applied at 2.4 pounds per acre.

Weed Control in Florida

In Florida, apply 1.75 pounds per acre of Surflan WDG three times per year, or every 90 to
100 days, in the fall, early spring, and early summer. Do not apply more than 1.75 pounds
per acre of Surflan WDG in any single application.

Application Equipment

Apply Surflan WDG evenly over the turfgrass area. Avoid spray pattern skips and overlaps
that may result in incomplete coverage or over-application. For best results use applica-
tion equipment designed to uniformly broadcast liquid herbicides. Calibrate application
equipment prior to use, according to manufacturer’s directions. Check equipment fre-
quently 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 WDG. When reseeding, it is essential that proper cultural practices such as soil cul-
tivation and seedbed preparation, irrigation and fertilization be followed. For satisfactory
reseeding results following Surflan WDG 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.

## STORAGE AND DISPOSAL

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

Pesticide 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 use of this product may be disposed of on
site or at an approved waste disposal facility.

Container Disposal: Nonrefillable container. Do not reuse or refill this container.

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