OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION
WASHINGTON, D.C. 20460

November 6, 2025

Meshea J. Brodie
US Regulatory Team Leader
UPL NA Inc.
630 Freedom Business Center, Suite 402
King of Prussia, PA 19406

Subject: Label Amendment - Registration Review Mitigation for Oryzalin and Water-Soluble Packaging Label Update
Product Name: SURFLAN 75WSP
EPA Registration Number: 70506-40
Case Number: 475490 & 474723
Application Date: March 19, 2018 & August 26, 2022

Dear Meshea J. Brodie:

The Agency, in accordance with the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, has completed reviewing all of the information submitted with your application to support the Registration Review of the above referenced product in connection with the Oryzalin Interim Decision, and has concluded that your submission is acceptable. The Agency also completed review of your amended label referred to above, submitted in connection with registration under FIFRA, as amended, and has determined the label is also acceptable.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide, Fungicide, and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling and must be used at your next label printing. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

If you have any questions about this letter, please contact Caleb Carr by phone at 202-566-0636, or via email at carr.caleb@epa.gov.

Sincerely,

Julie Javier, Team Leader
Risk Mitigation and Implementation Branch 4
Pesticide Re-Evaluation Division
Office of Pesticide Programs

ENCLOSURE: Stamped label

Oryzalin	GROUP	3	HERBICIDE

Surflan® 75WSP

A preemergence surface-applied herbicide for control of most annual grasses and certain broadleaf weeds.

Active Ingredient:
oryzalin: 3,5-dinitro-
N^4, N^4-dipropylsulfanilamide 75%
Other Ingredients 25%
Total 100%

Contains 1.0 pound active ingredient per 1.3 pound water-soluble packet.

This resealable package contains Surflan 75WSP herbicide in water-soluble packets. Do not remove water-soluble packet except for immediate use.

Keep Out of Reach of Children

CAUTION PRECAUCION

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.)

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.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency medical assistance, call Rocky Mountain Poison and Drug Safety at 1-866-673-6671.

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

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

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

EPA Reg. No. 70506-40

EPA Est. No._____

UPL NA Inc.
P.O. Box 12219
Research Triangle Park, NC 27709
1-800-438-6071

Net Weight _____ lb

ACCEPTED
Nov 6, 2025
Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 70506-40

Table of Contents

Precautionary Statements

Hazards to Humans and Domestic Animals

Keep Out of Reach of Children

CAUTION

Causes Moderate Eye Irritation • Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Avoid contact with skin, eyes, or clothing.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

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

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Controls Statements

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

Water soluble packets, when used correctly, qualify as a closed mixing/loading system under the Worker Protection Standard [40 CFR 170.607(d)]. Mixers and loaders handling this product while it is enclosed in intact water soluble packets may elect to wear reduced PPE of long-sleeved shirt, long pants, shoes, socks. When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for “applicators and other handlers” and have such PPE immediately available for use in an emergency, such as a spill or equipment break-down.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

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.

Groundwater Advisory

Oryzalin is known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

NON-TARGET ORGANISM ADVISORY

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

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.

Handling Precautions for Water Soluble Packets
Do not remove packet from foil overpack except for immediate use. Do not allow packet to come in contact with water prior to use. Do not handle with wet hands. Carefully reseal package after use and protect unopened packets from moisture.

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, 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
- Waterproof gloves
- Shoes plus socks

STORAGE AND DISPOSAL

Pesticide Storage: Store in original container only. In case of leak or spill, contain material with absorbent material and dispose as waste.
Pesticide Disposal: Do not contaminate water, food or feed by storage or disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.
Container Disposal: Nonrefillable container. Do not refill or reuse this container. Offer for recycling if available, or dispose of the empty outer pouch in the trash as long as WSP is unbroken.

WEED RESISTANCE MANAGEMENT

Mode of action

Surflan 75 WSP contains the active ingredient oryzalin, which controls susceptible annual weeds by disrupting plant growth processes during seed germination.
Any weed population may contain or develop plants naturally resistant to Surflan 75 WSP and other Group 3 herbicides. Weed species with acquired resistance to Group 3 may eventually dominate the weed population if Group 3 herbicides are used repeatedly in the same field. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance take one or more of the following steps:

- Rotate the use of Surflan 75 WSP or other Group 3 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field. Whenever possible incorporate multiple weed control practices such as mechanical cultivation, biological management practices, and crop rotation.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g. higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Fields should be scouted before and after application to identify the weed species present and their growth stage to determine if the intended application will be effective. Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product and switch to another management strategy or herbicide with a different mode of action (MOA), if available. Treat weed escapes with an herbicide with a different MOA or use non-chemical methods to remove escapes. To the extent possible do not allow weed escapes to produce seeds, roots, or tubers.
- Contact your local extension specialist, certified crop advisors, and/or manufacturer for additional herbicide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes. Report any incidence of non-performance of this product against a particular weed species to your retailer or UPL NA representative.

General Information

Surflan 75WSP herbicide is a preemergence, surface applied herbicide for the control of most annual grasses and certain broadleaf weeds. Surflan 75WSP controls susceptible annual weeds by disrupting plant growth processes during germination. Surflan 75WSP may be applied in liquid sprays of water or liquid fertilizer (See special mixing instruction if used with liquid fertilizer). Surflan 75WSP may be tank mixed with other herbicides to control existing vegetation or improve the spectrum of weeds controlled. Surflan 75WSP alone does not control established weeds.

General Use Precautions and Restrictions

Do not graze or feed forage from treated fields or orchards to livestock.

Poor weed control may result if directions are not carefully followed.

Do not over-apply Surflan 75WSP. Over-application may result in crop injury or soil residue.

Do not plant any root crop for 12 months following a Surflan 75WSP application.

Do not use Surflan 75WSP on soils containing more than 5% organic matter.
Apply Surflan 75WSP directly to the soil surface in orchards or vineyards.
For orchard crops, including citrus, pome fruits, stone fruits, and tree nuts, apply product only as a strip treatment in the tree rows; do not apply to row middles or drive rows.

Carefully follow label directions to avoid poor weed control or crop injury.

Chemigation: See instructions for chemigation in "Application Methods".

Do not aerially apply this product.

MANDATORY SPRAY DRIFT MANAGEMENT
Ground Boom Applications

- User must only apply with the nozzle height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to use a medium or coarser droplet size according to the most current version of the American Society of Agricultural & Biological Engineers Standard 572 (ASAE S572).
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

Boomless Ground Applications

- Applications are required to use a medium or coarser droplet size according to the most current version of the American Society of Agricultural & Biological Engineers Standard 572 (ASAE S572). for all applications.
- Do not apply when wind speeds exceed 10 miles per hour at the application time.
- Do not apply during temperature inversions.

SPRAY DRIFT ADVISORIES
THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

IMPORTANCE OF DROPLET SIZE
An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size – Ground Boom

- Volume – increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure – use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle – use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

BOOM HEIGHT – Ground Boom
For ground equipment, the boom should remain level with the crop and have minimal bounce.

SHIELDED SPRAYERS
Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

TEMPERATURE AND HUMIDITY
When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS
Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

WIND
Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.
Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

Soil Preparation

Optimum herbicidal activity occurs when Surflan 75WSP is applied to the soil surface. Prior to application, existing unwanted vegetation should be destroyed by tillage or use of contact or translocated herbicides. Crop or weed residues, prunings and trash should be thoroughly mixed into the soil by tillage equipment or removed before treatment. Soil should be in good tilth and free of clods at the time of application.

Activation and Cultivation

A single 1/2 to 1-inch rainfall or sprinkler irrigation is required to activate Surflan 75WSP and move the herbicide into the zone of weed germination. Rainfall or irrigation of 1 inch or more is needed to activate Surflan 75WSP on fine-textured, high organic matter soils. If weeds begin to emerge, a shallow cultivation to a depth of 1 to 2 inches will destroy existing weeds and place Surflan 75WSP in the zone of weed seed germination.

Mixing Directions

Surflan 75WSP - Alone
Surflan 75WSP may be applied in water or most liquid fertilizer materials. Prior to mixing Surflan 75WSP in liquid fertilizer, refer to "Testing for Compatibility in Liquid Fertilizers" for test procedures to determine compatibility with the fertilizer product to be used. The combination of Surflan 75WSP with solution and suspension-type fertilizers provides annual weed control equal to Surflan 75WSP applied in water. Individual state regulations relating to liquid fertilizer mixing, registration, labeling and application are the responsibility of the individual and/or company offering the fertilizer and chemical mixture for sale.

Start with a clean spray tank. Fill the sprayer to 1/3 to 1/2 of the required spray volume. Start agitation. Add the required number of water-soluble packets to the spray tank. Allow time for complete mixing of Surflan 75WSP after packets have disintegrated. Continue agitation and fill spray tank to required spray volume. Maintain continuous agitation from mixing through application.

Instructions for Using Water Soluble Packages Directly into Spray tanks:
Water Soluble Packages (WSPs) are designed to dissolve in water. Agitation may be used, if necessary, to help dissolve the WSP. Failure to follow handling and mixing instructions can increase your exposure to the pesticide products in WSPs. WSPs, when used properly, qualify as a closed mixing/loading system under the Agricultural Worker Protection Standard [40 CFR 170.607(d)].

Handling Instructions

Follow these steps when handling pesticide products in WSPs.
1. Mix in spray tank only.
2. Handle WSP(s) in a manner that protects package from breakage and/or unintended release of contents. If package is broken, put on PPE required for clean-up and then continue with mixing instructions.
3. Keep the WSP(s) in outer packaging until just before use.
4. Keep the WSP dry prior to adding to the spray tank.
5. Handle with dry gloves and according to the label instructions for PPE.
6. Keep WSP intact. Do not cut or puncture WSP.
7. Reseal the WSP outer packaging to protect any unused WSP(s).

Mixing Instructions

Follow the steps below when mixing this product, including if tank mixed with other pesticide products. If being tank mixed, the mixing directions 1 through 9 below take precedence over the mixing directions of the other tank mix products. WSPs may, in some cases, be mixed with other pesticide products so long as the directions for use of all mixed products do not conflict. Do not tank mix this product with products that prohibit tank mixing or have conflicting mixing directions.
1. If a basket or strainer is present in the tank hatch, remove prior to adding the WSP to the tank.
2. Fill tank with water to approximately one-third to one-half of the desired final volume of spray.
3. Stop adding water and stop any agitation.
4. Place intact/unopened WSP(s) into the tank.
5. Do not spray water from a hose or fill pipe to break or dissolve the WSP(s).
6. Start mechanical and recirculation agitation from the bottom of tank without using any overhead recirculation, if possible. If overhead recirculation cannot be turned off, close the hatch before starting agitation.
7. Dissolving the WSP(s) may take up to 5 minutes or longer, depending on water temperature, water hardness and intensity of agitation.
8. Stop agitation before tank lid is opened.
9. Open the lid to the tank, exercising caution to avoid contact with dusts or spray mix, to verify that the WSPs have fully dissolved and the contents have been thoroughly mixed into the solution.
10. Do not add other allowed products or complete filling the tank until the bags have fully dissolved and pesticide is thoroughly mixed.
11. Once the WSP have fully dissolved and any other products have been added to the tank*, resume filling the tank with water to the desired level, close the tank lid, and resume agitation.
12. Use the spray solution when mixing is complete.
13. Maintain agitation of the diluted pesticide mix during transport and application.
14. It is unlawful to use any registered pesticide, including WSPs, in a manner inconsistent with its label.

Special Instruction: Do not add Surflan 75WSP water-soluble packets directly to liquid fertilizers. Surflan 75WSP in water-soluble packets should first be premixed with water (See instruction for premixing or slurrying below). Add premixed Surflan 75WSP to the spray tank through a 20-35 mesh-wetting screen to insure good initial dispersion.

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

Surflan 75WSP - Tank Mix Combinations
Surflan 75WSP may be tank mixed with other products and applied with water or most liquid fertilizer materials. Prior to tank mixing Surflan 75WSP with other herbicides, mix the products together in correct proportions in a small container of water. After mixing, let stand for 5 minutes and check for compatibility. If the combination remains mixed or can be resuspended easily, the mixture is compatible.

Tank Mixing in Liquid Fertilizer: Prior to mixing Surflan 75WSP with other products in liquid fertilizer, refer to the tank mix product manufacturer's label to determine if application in liquid fertilizer is recommended. Also refer to "Testing for Compatibility in Liquid Fertilizers" for testing procedures to determine compatibility with the fertilizer product to be used. The combination of Surflan 75WSP with solution and suspension-type fertilizers provides annual weed control equal to Surflan 75WSP applied in water. Individual state regulations relating to liquid fertilizer mixing, registration, labeling and application are the responsibility of the individual and/or company offering the fertilizer and chemical mixture for sale. Read and follow all label instructions for each material to be added to the spray tank.

Vigorous continuous agitation is required for all tank mixes. Sparger 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 spray tank to 3/4 of the total spray volume required. Start agitation. 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. Allow time for complete mixing after Surflan 75WSP water-soluble packets have disintegrated.
Add different formulation types in the following order: dry flowables (DF); Surflan 75WSP and or other wettable powders (WP); flowables (F), liquids (L) or aqueous suspensions (AS); solutions (S); and emulsifiable concentrates (EC). Fill tank to final spray volume. Maintain continuous agitation during mixing, final filling 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 resuspended before spraying is resumed. A sparger agitator is particularly useful for this purpose. Settled materials may be more difficult to resuspend than when originally mixed.

Premixing: When tank mixing or mixing with liquid fertilizers, initial mixing and dispersion of dry flowable or wettable powder products may be improved by premixing with water (slurrying). Surflan 75WSP in water-soluble packets should be slurried prior to mixing with liquid fertilizer materials. Where recommended for other products, follow product label instructions for each material. Adding the slurried material to the spray tank through a 20 to 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).

Testing for Compatibility in Liquid Fertilizers

Surflan 75WSP alone or in combination with dry flowable (DF), wettable powder (WP), aqueous suspension (AS), flowable (F), liquid (L), solution (S) or emulsifiable concentrate (EC) formulations may not combine properly with some liquid fertilizer materials. Small quantities of such mixtures should always be tested before full-scale mixing. Follow the testing procedure below to determine if a compatibility agent is needed or which compatibility agent works best in your liquid fertilizer plus herbicide mixture. Nine compatibility agents listed at the end of this section have been thoroughly tested. Other surfactant materials available may not be formulated for use with liquid fertilizers.

Testing Procedure

1. Add 1 pint of liquid fertilizer to 1-quart glass jar.
2. Add 1 to 4 teaspoonfuls of DF, Surflan 75WSP, other WP formulations, AS, F, or L formulations, depending on mixing ratio required, to the liquid fertilizer. Close the jar and shake until evenly dispersed after addition of each formulation. If dry flowable or wettable powder formulations do not disperse well, it may be necessary to slurry the materials in a small amount of water before addition to the liquid fertilizer.
3. After dispersing the materials in step 2, add any S formulations to the jar and shake well. Finally, add EC formulations to the mixture and shake well. Observe the jar for about 10 minutes. If materials rise to the surface and form a thick layer that will not redisperse when agitated, a compatibility agent is needed. If the mixture is easily redispersed with slight agitation, a compatibility agent is not required. Good agitation, however, must be provided to maintain dispersion in the spray tank from mixing through application.

4. If the need for a compatibility agent is demonstrated in step 3, the following procedure is recommended: Using a clean clear plastic or glass container, repeat step 1 above and add 1/2 teaspoon of the compatibility agent to the liquid fertilizer mixture. Shake well and then repeat steps 2 and 3.

   An effective compatibility agent will cause the mixture to remain uniformly mixed with little or no separation for 1/2 hour or longer. If slight separation occurs, 2 to 3 inversions of container should be sufficient to uniformly redisperse the mixture. If layers form which will not disperse, try adding additional compatibility agent or use an alternative compatibility agent to achieve a uniform mixture.

   Use a clean jar in each test. A compatible mixture will have a uniform appearance and will be relatively easy to redisperse with gentle agitation of the jar.

Compatibility Agents
The phosphate ester-type surfactants listed below are designed for use with liquid fertilizers and can be mixed at rates as low as 1 1/2 to 2 pints per ton of liquid fertilizer. They usually do not work well as compatibility agents for tank mixes in plain water. Add the compatibility agent just before adding herbicides. Read and follow label directions for the compatibility agent.

1. Sponto 168D (Witco Chemicals Co., Chicago, IL)
2. Compat (Farm Chemicals, Inc., Aberdeen, NC)
   Not for use in California.
3. Unite (Hopkins Ag Chemical, Madison, WI)
4. T-Mulz 734-2 (Thompson-Hayward Chemical Co., Kansas City, KS)
   Not for use in California.
5. Rigo Compatibility Agent (Rigo Company, Buckner, KY)
   Not for use in California.
6. Amoco Spray Mate™ (Amoco Oil Co., Chicago, IL)
   Not for use in California
7. Kem-Link (Universal Coop, Minneapolis, MN)
   Not for use in California
8. Blendex™ (Helena Chemical Co., Cayce - West, Columbia, SC)
   Not for use in California.
9. Spray-Aide™ (Miller Chemical and Fertilizer Corp., Hanover, PA)

Application Methods

Ground Broadcast Application
Apply Surflan 75WSP in a total spray volume of 20 to 40 gallons per acre (broadcast basis), using any properly calibrated low-pressure herbicide sprayer that will apply the spray uniformly. Use herbicide nozzle tips and screens no finer than 50 mesh for nozzle and in-line strainers. As the amount of spray volume per acre decreases, the importance of accurate calibration and uniform application increases. Check the sprayer daily to insure proper calibration and uniform application. Avoid boom overlaps that will increase rates above those recommended.

Band Application
For band application, use the following formula to calculate the required amount of Surflan 75WSP per acre.

Band Width (inches)
---------- X Broadcast rate per acre = Amount required per acre
Row Width (inches)

Chemigation

Surflan 75WSP may be applied through properly equipped chemigation systems for weed control in fruit and nut orchards or vineyards. Read and follow all label instructions outlined below concerning chemigation before applying Surflan 75WSP by this method.

Chemigation Use Precautions: Make **non-dormant** chemigation applications of Surflan 75WSP only through solid set or hand move systems designed to distribute sprinkler irrigation beneath the tree canopy. Solid set systems utilizing tall risers for overhead application may be used only for **dormant** season chemigation applications. Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

If you have questions about calibration, you should contact State Extension Service Specialists, equipment manufacturers or other experts.

Do not connect an irrigation system (including greenhouse systems) used for chemigation application to a public water system.

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Sprinkler Chemigation Directions
The following directions must be followed for all recommended sprinkler irrigation systems (solid set and hand move systems):

1. The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.
8. Surflan 75WSP should be injected continuously throughout chemigation water application period. The chemigation-metering pump should be checked periodically during application to ensure proper operation.
9. The injection-metering pump must be calibrated as specified by the manufacturer.
10. During chemigation, maintain agitation in supply tank at all times.
11. Surflan 75WSP may cause some staining of plastic hoses and tanks.
12. Apply Surflan 75WSP in 1/2 to 1 inch of sprinkler irrigation.

Chemigation System Calibration

The following is a sample calculation for use of Surflan 75WSP:

- Assume, in this example, 35 acres are to be covered by a chemigation treatment.
- Product required, assuming an application rate of 2 water-soluble packets per acre is 70 packets of Surflan 75WSP

  (35 acres X 2 packets/acre = 70 packets)

- For chemigation application, prepare a mixture containing a minimum of 2 gallons of water per water-soluble packet of Surflan 75WSP (see "Mixing Directions").

  (70 packets X 2 gallons/packet = 140 gallons)

- Adjust the injection system to deliver 140 gallons during the time required to apply 1 inch of water to 35 acres.
- If the irrigation system requires 5 hours to apply 1 inch of water to 35 aces, the injection rate is 28 gallons per hour and is calculated as follows:

  140 gallons ÷ 5 hours = 28 gallons per hour (0.467 gallons/min or 60 fl oz/min)

- Proper calibration requires the injection pump to be adjusted to deliver 60-fl. oz. per minute and is calculated as follows:

  28 gallons/hr ÷ 60 min/hr = 0.467 gallons per min or 60 fl oz per min
  (0.467 gallons per min X 128 fl oz per gallon = 60 fl oz per min)

Mixing Directions

Prepare a mixture (slurry) for use in the chemigation system by adding the required amount of Surflan 75WSP to 1/2 of the required volume of water (1 gallon of water per packet of Surflan 75WSP). Start agitation and while mixing add sufficient water to bring the total injection volume to a minimum of 2 gallons of water per packet of Surflan 75WSP. Meter the mixture into the irrigation system during the entire irrigation period. Maintain agitation within the supply tank throughout the irrigation period.
Note: Additional dilution of Surflan 75WSP may be necessary for accurate calibration of equipment not designed for low volume injection.

Weeds and Grasses Controlled in Fruit and Nut Crops, and Vineyards

Annual Grasses

Common Name	**Scientific Name**
Barley, little	*Hordeum pusillum*
Barnyardgrass (Watergrass)	*Echinochloa crus-galli*
Bluegrass, annual (Poa)	*Poa annua*
Brachiaria (Signalgrass)	*Brachiaria* spp.
Browntop panicum	*Panicum fasciculatum*
Crabgrass (Large crabgrass) (Smooth crabgrass)	*Digitaria* spp.
Crowfootgrass	*Dactyloctenium aegyptium*
Cupgrass	*Eriochloa gracilis*
Downy brome	*Bromus tectorum*
Fall panicum	*Panicum dichotomiflorum*

(Spreading panicgrass)	
Foxtails	*Setaria* spp.
(Bottlegrass)	
(Bristlegrass)	
(Giant foxtail)	
(Green foxtail)	
(Pigeongrass)	
(Robust foxtail)	
(Yellow foxtail)	
Guineagrass	*Panicum maximum*
(Narrowleaf panicum)	
Johnsongrass	*Sorghum halepense*
(Seedling only)	
Junglerice	*Echinochloa colonum*
Lovegrass, Mexican	*Eragrostis mexicana*
Lovegrass, orcutt	*Eragrostis orcuttiana*
Oat, wild	*Avena fatua*
Ryegrass, annual (Italian)	*Lolium multiflorum*
Sandbur, field	*Cenchrus incertus*
Sprangletop, red	*Leptochloa filiformis*
Texas panicum	*Panicum texanum*
(Buffalograss)	
(Coloradograss)	
Witchgrass	*Panicum capillare*

Annual Broadleaf Weeds

Common Name	**Scientific Name**
Carpetweed	*Mollugo verticillata*
Chickweed	*Stellaria media*
Cudweed	*Gnaphalium chilense*
Fiddleneck, coast	*Amsinckia intermedia*
Florida pusley	*Richardia scabra*
(Florida purslane)	
(Mexican clover)	
(Pusley)	
Henbit	*Lamium amplexicaule*
Knotweed, prostrate	*Polygonum aviculare*
Lambsquarters	*Chenopodium album*
Pigweeds	*Amaranthus* spp.
(Carelessweed)	
(Prostrate pigweed)	
(Redroot pigweed)	
(Rough pigweed)	
(Smooth pigweed)	
(Spiny pigweed)	
(Tumble pigweed)	
Puncturevine	*Tribulus terrestris*
Purslane, common	*Portulaca oleracea*
Rockpurslane, redmaids	*Calandrinia caulescens*
Shepherdspurse	*Capsella bursa-pastoris*

Surflan 75WSP provides partial control or suppression of:

Common Name	Scientific Name
Filaree, redstem	*Erodium cicutarium*
Filaree, whitestem	*Erodium moschatum*
Groundsel, common	*Senecio vulgaris*
Ladysthumb	*Polygonum persicaria*
Lettuce, prickly	*Lactuca serriola*
Mallow, common	*Malva neglecta*
Milkweed, climbing	*Sarcostemma cynanchiodes*
Morningglory, annual	*Ipomoea* spp.
Mustard, black	*Brassica nigra*
Mustard, wild	*Sinapis arvensis*
Nightshade, black	*Solanum nigrum*
Prickly sida (teaweed)	*Sida spinosa*
Ragweed, common	*Ambrosia artemisiifolia*
Ragweed, giant	*Ambrosia trifida*
Rocket, London	*Sisymbrium irio*
Smartweed, annual	*Polygonum* spp.
Sowthistle, annual	*Sonchus oleraceus*
Spurge, prostrate	*Euphorbia humistrata*
Spurge, spotted	*Euphorbia maculata*
Velvetleaf	*Abutilon theophrasti*

Approved Crops

Fruit and Nut Crops and Vineyards (Non-bearing and Bearing)

Surflan 75WSP - Alone
Apply Surflan 75WSP to fruit and nut crops and vineyards as a preemergence treatment to control annual grasses and broadleaf weeds listed in the "General Information" section of this label.

Surflan 75WSP is approved for use on the following crops:

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

Small Fruits:

Blackberry	Currant	Gooseberry
Blueberry[††]	Dewberry	Loganberry
Boysenberry	Elderberry	Raspberry

[††]Do not apply Surflan 75WSP to lowbush blueberries.

Broadcast Application Rates per acre

Soil Texture	Length of Control	Surflan 75WSP (lb/acre)	Minimum Time Between Applications (months)	Total Amount Allowed Per Year (lb/acre)
All Soil Textures	Short Term (2 - 4 months)	2.6	2.5	16
	Long Term (6 - 8 months)	5.2	2.5	16
	(8 - 12 months)	7.8	2.5	16

Chemigation Application of Surflan 75WSP

Apply Surflan 75WSP in 1/2 to 1 inch of sprinkler irrigation. Apply in at least 1 inch of sprinkler irrigation on medium to fine textured or high organic matter soils. Surflan 75WSP does not control established weeds. Surflan 75WSP must be applied prior to weed germination or immediately after existing weeds are controlled. Control existing unwanted vegetation with tillage or with a contact or translocated herbicide.

Cultivation
If weeds begin to emerge after application from below the zone of herbicidal activity, a shallow cultivation of 1 to 2 inches will destroy existing weeds and mix Surflan 75WSP into the zone of weed germination.

Chemigation Use Precautions
Overtop applications with sprinkler systems utilizing tall risers may be made only to **dormant** tree fruit and nut orchards or vineyards. Make chemigation applications to **non-dormant** tree fruit and nut orchards only through solid set or hand move sprinkler systems with risers and sprinkler heads designed to distribute water uniformly beneath the tree canopy.

Surflan 75WSP - Tank Mix Recommendations

The products listed below are compatible with Surflan 75WSP when used in tank mix combination. Performance and risk of carryover from products listed below when used in combination with Surflan 75WSP at recommended rates is the same as when each product is used separately.

Follow tank-mixing instructions provided in the "General Information" section of this label when mixing Surflan 75WSP with other products.

Users should always consult the manufacturer's label of product(s) to be tank mixed with Surflan 75WSP for specific information on use rates, additional weeds controlled, rotational crop restrictions or risk of carryover, special tank mix instructions, additional use directions, precautions and limitations before use. **Note**: Some crop uses of tank mix products are limited to or excluded from certain states. Such limitations are specified in the label of the product to be tank mixed with Surflan 75WSP

Recommended Surflan 75WSP Tank Mix Combinations:
Surflan 75WSP plus Goal
Surflan 75WSP plus Goal plus Gramoxone Super*
Surflan 75WSP plus Gramoxone Super
Surflan 75WSP plus Princep (Simazine)
Surflan 75WSP plus glyphosate
Surflan 75WSP plus Solicam

*Use of an agriculturally registered non-ionic surfactant is recommended with this 3-way tank mix combination to improve the compatibility of these herbicides when mixed together. Fill the spray tank one-third to one-half (1/3 to 1/2) full with clean water. With agitation running, add either one (1) quart of X-77 or two (2) quarts of Triton AG-98 per 100 gallons of spray mixture. Add the recommended amount of Surflan and mix thoroughly. Continue filling the spray tank and add Goal. Then add Gramoxone Super. If a nonionic spreader is being used, add it to the tank last. Apply in at least 50 gallons of water per acre.

Surflan 75WSP - Tank Mix Reference Table:
The following table lists approved crops for Surflan 75WSP and products for tank mixes with Surflan 75WSP
(** = Approved Crop). Refer to the table to determine if the herbicides recommended for tank mixing can be applied to your crop. For use on a given crop, two asterisks must be indicated for Surflan 75WSP and the product with which it is to be tank mixed.

	Surflan 75WSP	Goal	Gramo-xone Super	Princep (Simazine)	Glyphosate	Solicam
Almond	**	**	**	**	**	**
Apple	**	**	**	**	**	**
Apricot	**	**	**	-	**	**
Avocado	**	**	**	**	**	-
Cherry	**	**	**	**	**	-
Fig	**	**	**	-	**	-
Filbert	**	**	**	**	**	**
Grape	**	**	**	**	**	**
Grapefruit	**	-	**	**	**	**
Kiwi	**	**	**	-	**	-
Lemon	**	-	**	**	**	**
Macadamia nut	**	**	**	**	**	-
Nectarine	**	**	**	-	**	**
Olive	**	**	**	**	**	-
Orange	**	-	**	**	**	**
Peach	**	**	**	**	**	**
Pear	**	**	**	**	**	**
Pecan	**	**	**	**	**	**
Pistachio	**	**	**	-	**	-
Plum	**	**	**	**	**	**
Pomegranate	**	**	-	-	**	-
Prune	**	**	**	-	**	**
Walnut, English	**	**	**	-	**	**

Small Fruits:

Blackberry	**	-	**	**	**	**
Blueberry	**	-	**	**	**	**
Boysenberry	**	-	**	**	**	-
Currants	**	-	-	-	**	-
Dewberry	**	-	-	-	**	-
Elderberry	**	-	-	-	**	-
Gooseberry	**	-	-	-	**	-
Loganberry	**	-	-	**	**	-
Raspberry	**	-	**	**	**	**

Christmas Tree Plantations

Surflan 75WSP Alone
Apply Surflan 75WSP 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

Length of Control	Surflan 75 WSP (lb/acre)	Minimum Time Between Applications (months)	Total Amount Allowed Per Year (lb/acre)
Short term (2 - 4 months)	2.6	2	10.7
Long term (4 - 8 months)	5.2	2	10.7

Tank-Mix Combinations
Tank-mix combinations of Surflan 75WSP 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 label of the product to be tank mixed with Surflan 75WSP for specific use directions, precautions and limitations before use.

Surflan 75WSP/glyphosate: Apply tank-mix combinations of Surflan 75WSP plus glyphosate only as directed sprays in Christmas tree plantings. When applied according to use directions, Surflan 75WSP plus glyphosate will provide postemergence control of susceptible weed species listed on the glyphosate label and residual preemergence control of susceptible weed species listed on the Surflan 75WSP label. 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.

IMPORTANT INFORMATION
READ BEFORE USING PRODUCT

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product reflect the opinion of experts based on field use and tests, and must be followed carefully. It is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of UPL NA Inc. or Seller. Handling, storage, and use of the product by Buyer or User are beyond the control of UPL NA Inc. and Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold UPL NA Inc. and Seller harmless for any claims relating to such factors.

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