

NET WEIGHT 64 FLUID OUNCES

FOR THE MANAGEMENT OF UNDESIRABLE AQUATIC VEGETATION IN SLOW MOVING OR QUIESCENT WATERS. FOR USE TO MAINTAIN BARE GROUND NON-CROP AREAS, CONIFER AND POPLAR RE-FORESTATION SITES. FOR USE IN CONTAINER AND FIELD GROWN CONIFERS (INCLUDING CHRISTMAS TREES) AND DECIDUOUS TREES, AROUND ESTABLISHED WOODY ORNAMENTALS IN LANDSCAPES AND MAINTAIN NON-CROP AREAS AND DORMANT BERMUDAGRASS.



Active Ingredient	By Wt
Flumioxazin*	41.4%
Other Ingredients	58.6%
Total	100.0%

*N-[7-fluoro-3,4-dihydro-3-oxo-4-(prop-2-ynyl)-2H-1,4-benzoxazin-6-yl]cyclohex-1-ene-1,2-dicarboximide

Flumi® T&O Herbicide contains 4 pounds flumioxazin per gallon.

EPA Reg. No. 59639-260 EPA Est. 228-IL-1[ⓧ], 228-IL-2[ⓐ], 39578-TX-1[©], 5481-ID-1[Ⓜ], 5905-GA-1[©], 62171-MS-1[ⓐ], 62171-MS-3[ⓐ], 62171-MS-4, 67545-AZ-1[ⓧ], 67997-IA-1, 67997-IA-7, 70815-GA-1[ⓧ], 70815-GA-2[ⓐ], 70815-GA-3, 71764-NC-1, 86555-MO-1[Ⓢ], 89332-GA-2[ⓐ], 97524-GA-1[©]

Superscript is first letter of lot number.

**KEEP OUT OF REACH
OF CHILDREN
CAUTION**

**SEE NEXT PAGE FOR ADDITIONAL
PRECAUTIONARY STATEMENTS.**

Shake Well Before Use

Flumi® T&O
HERBICIDE

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Harmful if inhaled or absorbed through the skin. Causes moderate eye irritation. Avoid breathing spray mist. Avoid contact with skin, eyes, or clothing. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact Valent at **800-892-0099** for emergency medical treatment information.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- long-sleeved shirt and long pants
- Chemical-resistant gloves made of barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyvinyl chloride, or Viton ≥ 14 mils.
- shoes and socks.

For aquatic occupational handlers must wear:

- Mixers, loaders, and applicators of products formulated as liquid for aquatic subsurface applications using a mechanically pressurized handgun must wear the following PPE (in addition to baseline attire consisting of long pants, long-sleeved shirt, shoes and socks):
- Chemical-resistant gloves barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyvinyl chloride, or Viton ≥ 14 mils.
- Coveralls

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/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

If not used in accordance with directions on the label, this product can be toxic to non-target plants and aquatic invertebrates. **DO NOT** apply to water except as specified on the label. Drift and runoff may be hazardous to non-target plants and aquatic organisms in neighboring areas, if not used in accordance with label directions. **DO NOT** apply where runoff is likely to occur. **DO NOT** apply when weather conditions favor drift from treated areas. **DO NOT** contaminate water when disposing of equipment washwaters.

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.

Terrestrial Uses

This product is toxic to non-target plants and aquatic invertebrates. **DO NOT** apply directly to water, to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift or runoff may be hazardous to non-target plants and aquatic organisms in neighboring areas. **DO NOT** apply

where runoff is likely to occur. **DO NOT** apply when weather conditions favor drift from treated areas. **DO NOT** contaminate water when disposing of equipment washwaters or rinsate.

Under some conditions this product may have a potential to run-off to surface water or adjacent land. Where possible, use methods which reduce soil erosion, including no till, limited till and contour plowing; these methods also reduce pesticide run-off. Use of vegetation filter strips along rivers, creeks, streams, wetlands or on the downhill side of fields where run-off could occur will minimize water run-off and is recommended.

Aquatic uses

Treatment of aquatic weeds can result in oxygen loss from decomposition of dead weeds. This loss can cause fish suffocation. Therefore, to minimize this hazard, treat one-third to one-half of the water area in a single operation and wait at least 10 to 14 days between treatments. Begin treatment along the shore and proceed outwards in bands to allow fish to move into untreated areas. Consult with the State agency with primary responsibility for regulating pesticides before applying to public waters to determine if a permit is needed.

PHYSICAL OR CHEMICAL HAZARDS

DO NOT mix or allow to come in contact with oxidizing agent. Hazardous chemical reaction may occur.

DIRECTIONS FOR USE

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

READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

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.

TANK MIXES

NOTICE: Tank mixing or use of this product with any other product which is not specifically and expressly authorized by the label shall be the exclusive risk of user, applicator and/or application advisor, to the extent allowed by applicable law.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

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 statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, including plants, soil, or water is: coveralls, Chemical-resistant gloves made of barrier laminate, butyl rubber \geq 14 mils, nitrile rubber \geq 14 mils, neoprene rubber \geq 14 mils, polyvinyl chloride or Viton \geq 14 mils., shoes and 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 Standards for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forest, nurseries, or greenhouses.

Keep all unprotected persons out of operating areas, or vicinity where there may be drift. **DO NOT** enter or allow others to enter the treated areas until sprays have dried.

PRODUCT INFORMATION

Flumi T&O Herbicide is a fast acting contact herbicide for use in the management of undesirable aquatic vegetation in slow moving or quiescent waters, to maintain non-crop areas, container and field grown conifers (including Christmas trees) and deciduous trees, around established woody ornamentals in landscapes, conifer and poplar re-forestation sites, and dormant Bermudagrass.

Flumi T&O Herbicide is also effective as a preemergence and/or postemergence herbicide for control of selected grass and broadleaf weeds.

Flumi T&O Herbicide controls weeds by inhibiting protoporphyrinogen oxidase, an essential enzyme required by plants for chlorophyll biosynthesis. Seedling weeds are controlled preemergence when exposed to sunlight following contact with the soil applied herbicide.

Flumi T&O Herbicide may cause spotting or speckling on foliage if the spray solution directly contacts actively growing plant foliage or green bark. Leaves that receive indirect (drift) spray contact may be affected in a similar manner. Translocation of this product is limited, and under most conditions established and vigorously growing woody ornamentals will rapidly outgrow any injury symptoms. **However, direct application to actively growing foliage can cause severe injury or death with sensitive ornamental plant species, especially in herbaceous bedding plants and flowers.**

IMPORTANT: When applied as directed, plants listed on this label have shown tolerance to this product. However, this product is a very active herbicide. Exercise responsible judgment and caution until familiarity is gained with this product. Due to variability within species, crop growth stage, environmental conditions, and application techniques, it is directed that users test this product under local growing conditions on a small number of plants and evaluate for 4 to 6 weeks for phytotoxicity. Testing this product on a small number of plants will determine if the herbicide can be used safely on a widespread application.

Neither the seller nor the manufacturer of this product has investigated the safety to plants not listed on the label.

SPRAY DRIFT MANAGEMENT

MANDATORY SPRAY DRIFT REQUIREMENTS

Aerial Applications:

- **DO NOT** release spray at a height greater than 10 ft above the ground or vegetative canopy unless a greater application height is necessary for pilot safety.
- Applicators must select nozzle and pressure that deliver Medium or coarser droplets in accordance with American Society of Agricultural & Biological Engineers Standard 641 (ASABE S641).
- If the windspeed is 10 miles per hour or less, applicators must use 1/2 swath displacement upwind at the downwind edge of the field. When the windspeed is between 11-15 miles per hour, applicators must use 3/4 swath displacement upwind at the downwind edge of the field.
- **DO NOT** apply when wind speeds exceed 15 mph at the application site. If the windspeed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- **DO NOT** apply during temperature inversions.
- **DO NOT** apply this product by air within 40 ft of non-target plants including non-target crops.
- **DO NOT** apply this product by air within 100 ft of emerged cotton crops.
- **DO NOT** apply this product by air within 40 ft of streams, wetlands, marshes, ponds, lakes, and reservoirs.

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MANDATORY SPRAY DRIFT REQUIREMENTS (continued)

Ground Boom Applications:

- User must only apply with the release height specified by the manufacturer, but no more than 3 feet above the ground or crop canopy.
- Applicators must select nozzle and pressure that deliver Medium or coarser droplets in accordance with American Society of Agricultural & Biological Engineers Standard 572 (ASABE 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:

- Applicators must select nozzle and pressure that deliver Medium or coarser droplets in accordance with American Society of Agricultural & Biological Engineers Standard 572 (ASABE S572).
- **DO NOT** apply when wind speeds exceed 15 miles per hour at the application site.

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 specified 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.

Controlling Droplet Size - Aircraft

- **Adjust Nozzles** - Follow nozzle manufacturers' specifications for setting up nozzles. Generally, to reduce fine droplets, orient nozzles parallel with the airflow in flight.

BOOM HEIGHT – Ground Boom

For ground equipment, ensure the boom remains level with the crop and has minimal bounce.

RELEASE HEIGHT – Aircraft

Higher release heights increase the potential for spray drift.

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 are 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. **DO NOT** apply 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.

Boomless Ground Applications

Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

Handheld Technology Applications

Take precautions to minimize spray drift.

DO NOT use spray equipment used to apply this product to apply other materials to any crop unless the proper cleanout procedures are followed. See "SPRAYER CLEANUP" for more information.

PREEMERGENCE APPLICATION

Make the preemergence application of this product prior to weed emergence. Moisture is necessary to activate this product for residual weed control. Moisture is needed to move this product into the soil for preemergence weed control. Dry weather following application of this product may reduce effectiveness. However, when adequate moisture is received after dry conditions, this product will control susceptible germinating weeds.

When adequate moisture is not received soon after this product is applied to soil, weed control may be improved by using shallow cultivation. If weeds begin to emerge, irrigate (1/2" of water) or cultivate uniformly with shallow tillage equipment that will not damage the crop. Deep cultivation reduces the effectiveness of this product.

POSTEMERGENCE APPLICATION

For best results, apply this product to actively growing weeds. The most effective postemergence weed control with this product occurs when applied in combination with a surfactant to weeds less than 2 inches in height. Applying this product under conditions that do not promote active weed growth will reduce herbicide effectiveness. **DO NOT** apply this product when the weeds are under stress due to drought, excessive water and extremes in temperatures or disease. This product is most effective when applied under sunny conditions at temperatures above 65° F. This product is rainfast one hour after application. **DO NOT** make applications if rain is expected within one hour of application or efficacy may be reduced.

SOIL CHARACTERISTICS

Application of this product to soils with high organic matter and/or high clay content may require higher dosages than with soils with low organic matter and/or low clay content. Application to cloddy seedbeds can result in reduced weed control.

Resistance Management

For resistance management, *Flumi* T&O Herbicide is a Group 14 herbicide. Any weed population may contain or develop plants naturally resistant to *Flumi* T&O Herbicide and other Group 14 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Follow appropriate resistance management strategies.

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

- Rotate the use of *Flumi* T&O Herbicide or other Group 14 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.

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Resistance Management (continued)

- 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 prior to application to identify the weed species present and their growth stage to determine if the intended application will be effective. Fields should be scouted after application to verify that the treatment was effective. 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 including 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.

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Resistance Management (continued)

- 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, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes or to find out if suspected resistant weeds have been found in their region.

For further information or to report lack of performance or suspected resistance, contact Valent U.S.A. LLC at 800-6-VALENT (682-5368).

TANK MIX APPLICATION

In addition to weeds controlled by this product used alone, tank mixtures with other preemergence and postemergence herbicides registered for use in non-crop areas provide a broader spectrum of weed control. This product must be tank mixed with other non-crop herbicides including, but not limited to those products listed below.

TANK MIX COMBINATIONS FOR NON-SELECTIVE VEGETATION CONTROL

2,4-D bromacil chlorsulfuron clopyralid dicamba diuron glyphosate	hexazinone imazapic imazapyr metsulfuron methyl norfurazon oryzalin pendimethalin	picloram pramitol prodiamine simazine sulfometuron methyl tebuthiuron triclopyr
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Tank Mixing – Conifer and Poplar Release Treatments

Certain liquid formulations of other pesticides may increase the postemergence activity of this product but may also increase the potential for injury when applied over the top of various plants. Therefore, tank mixtures of these materials with this product may be potential for injury when applied over the top of various plants. Therefore, tank mixtures of these materials with this product may be more injurious than this product applied alone and need to be tested to determine if they can be used safely on a widespread basis.

Tank Mixing - Container and Field Grown Conifers

This product may be tank mixed with products containing the following active ingredients labeled for use in conifers:

clethodim	glyphosate*	oryzalin	prodiamine	simazine*
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***DO NOT** apply glyphosate or simazine to containerized ornamentals.

Tank Mixing - Field and Container Grown Deciduous Trees

This product may be tank mixed with products containing the following active ingredient labeled for use in deciduous trees:

clethodim	oryzalin	simazine*
glyphosate*	pendimethalin	
metolachlor	prodiamine	

***DO NOT** apply glyphosate or simazine to containerized ornamentals.

Tank Mixing - With Other Turfgrass Herbicides

This product will suppress, but will not effectively control, established winter perennial weeds including dandelion and clover. Tank mix with metsulfuron to control winter perennial weeds.

APPLICATION AND SPRAYER INFORMATION

Apply this product with sprayers equipped with nozzles designed to deliver the desired spray pressure and spray volume. Apply by backpack or handgun sprayer, airboat, helicopter, airplane, or other application equipment that will ensure thorough coverage of plant foliage. **Important:** Thoroughly clean spray equipment, including all tanks, hoses, booms, screens, and nozzles. **DO NOT use spray equipment used to apply this product to apply other materials or to any desirable plant foliage.** Equipment with this product's residue remaining in the system may result in crop injury to subsequently treated crops. Application equipment must be clean and in good repair. Nozzles must be uniformly spaced on boom and frequently checked for accuracy.

BROADCAST APPLICATION

Apply this product and tank mixes of this product, with ground equipment using standard commercial sprayers equipped with flat fan or flood nozzles designed to deliver the desired spray pressure and spray volume.

BAND APPLICATION

When banding, use proportionately less water and this product per acre. The rate of this product required per acre, when applied as a banded application, can be calculated with the following formula:

Amount Needed per Acre for Banded Application	=	Band Width in Inches Row Width in Inches	×	Rate per Broadcast Acre
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HANDGUN APPLICATION

Applications may also be made using a handgun sprayer. Use a spray volume of at least 40 gallons per acre to insure uniform coverage.

BACKPACK APPLICATION

When applying this product with a backpack sprayer follow all above restrictions. Calibrate backpack sprayers to deliver 1 gallon of spray solution per 500 to 1,000 sq ft.

For Backpack Applications of *Flumi* T&O Herbicide at 10 fl oz per acre

Application Volume	Amount of <i>Flumi</i> T&O Herbicide to mix in 1 gallon of water	Amount of <i>Flumi</i> T&O Herbicide to mix in 2 gallons of water	Amount of <i>Flumi</i> T&O Herbicide to mix in 3 gallons of water
1 gallon per 500 sq ft (= 87 GPA)	0.67 tsp	1.33 tsp	2 tsp
1 gallon per 750 sq ft (= 58 GPA)	1 tsp	2 tsp	3 tsp
1 gallon per 1,000 sq ft (= 43.5 GPA)	1.33 tsp	2.67 tsp	4 tsp

1 level teaspoon (tsp) holds 5 ml of *Flumi* T&O Herbicide

Example: To treat 2,000 sq ft, mix 5.33 tsp of *Flumi* T&O in 2 gallons of water.

AERIAL APPLICATION

To obtain satisfactory weed control, aerial application of this product, must provide uniform coverage of surface weeds and sufficient contact time. When applied by air, this product may not provide adequate control of some submersed weeds. **DO NOT** apply by air when significant drift on to non-target plants

may occur or when wind velocity is more than 10 mph. **DO NOT** spray this product within 200 feet of dwellings, adjacent sensitive crops, or environmentally sensitive areas.

Volume and Pressure

Apply this product in a minimum of 5 gallons of water per acre with a maximum spray pressure of 40 PSI. Application at less than 5 gallons per acre may not provide adequate weed control. Higher gallonage applications generally provide more consistent weed control.

Nozzles and Nozzle Operation

Use nozzles that produce flat or hollow cone spray patterns. Use non-drip type nozzles including diaphragm type nozzles to prevent unwanted discharge of spray solution. The nozzle must be directed toward the rear of the aircraft, at an angle between 0° and 15° downward. **DO NOT** place nozzles on the outer 25% of the wings or rotors.

SPRAYER PREPARATION

Before applying this product, start with clean, well maintained application equipment. Clean the spray tank, as well as all hoses and booms to ensure no residue from the previous spraying operation remains in the sprayer. Some pesticides, including but not limited to the sulfonylurea and phenoxy herbicides, are active at very small amounts and can cause crop injury when applied to susceptible crops. Clean the spray equipment according to the manufacturer's directions for the last product used before the equipment is used to apply this product. If two or more products were tank mixed prior to this product's application, follow the most restrictive cleanup procedure.

Mixing Instructions

1. Fill clean spray tank 1/2 to 2/3 of desired level with clean water.
2. If water has a pH higher than 7, use an appropriate buffer to reduce pH to desirable range if material will not be sprayed within 6 hours of mixing.

3. Agitate solution until spray components have been added, mixed and sprayed. Agitation creates a rippling or rolling action on the water surface.
4. If a drift retardant is to be used, add 10 lb of spray grade ammonium sulfate per 100 gallons of spray solution where tank mix partners allow the use of AMS.
5. If tank mixing *Flumi* T&O Herbicide with other labeled herbicides, add water soluble bags first, followed by slowly adding dry formulations, liquid flowable and suspensions, emulsifiable concentrates and then solutions.
6. Add any required adjuvants.
7. Fill spray tank to desired level with water. **Continue agitation until all spray solution has been applied.**
8. Mix and spray only the amount of spray solution that can be applied the day of mixing for maximum effectiveness.

CARRIER VOLUME AND SPRAY PRESSURE (Ground Equipment only. See Information for Aerial Equipment under "AERIAL APPLICATION")

PREEMERGENCE APPLICATION

To ensure uniform coverage, use 10 to 40 gallons of spray solution per acre. When making backpack applications, apply 50 to 100 gallons of spray solution per acre. Nozzle must meet manufacturer's gallonage and pressure directions for preemergence herbicide application.

POSTEMERGENCE APPLICATION

To ensure thorough coverage, use 15 to 30 gallons of spray solution per acre. Use 20 to 30 gallons per acre if dense vegetation or heavy residue is present on the soil surface. When applying with a backpack sprayer, apply 1 gallon of spray solution per 500 to 1,000 square feet. Nozzle selection must meet manufacturer's gallonage and pressure directions for postemergence herbicide application.

ADDITIVES

When applying this product to the foliage of floating or emerged aquatic weeds, mix with an adjuvant approved for use in aquatic sites. Follow adjuvant

manufacturer's label rates. Verify mixing compatibility by a jar test before using.

When applying after weed emergence, mix with an agronomically approved adjuvant. When an adjuvant is to be used, use a Chemical Producers and Distributors Association certified adjuvant. Use a crop oil concentrate which contains at least 15% emulsifiers and 80% oil or a non-ionic surfactant containing at least 80% active ingredient when applying as part of a postemergence weed control program. Verify mixing compatibility by a jar test before using.

ADJUVANTS

Refer to the additive section or the tank mix partners label for adjuvant specifications. When applying Release Treatments, **DO NOT** mix this product with any adjuvant or fertilizer.

JAR TEST TO DETERMINE COMPATIBILITY OF ADJUVANTS AND THIS PRODUCT

Perform a jar test before mixing commercial quantities of this product, when using this product for the first time, when using new adjuvants or when a new water source is being used.

When using this product and an adjuvant, including in stale seed bed, layby, hooded/shielded or reduced tillage situations, perform a jar test before mixing commercial quantities of this product, when using this product for the first time, when using new adjuvants or when a new water source is being used.

1. Add 1 pint of the water to a quart jar. Use water from the same source and temperature as which will be used in the spray tank mixing operation.
2. Add 1 milliliter of this product to the quart jar for every 3 fl oz of this product per acre being applied (4 ml if 12 fl oz per acre is the desired rate of this product), gently mix until product goes into suspension.
3. Add 1 milliliter of non-ionic surfactant or 60 millimeter of crop oil concentrate, gently mix.
4. Place cap on jar, invert 10 times, let stand for 15 minutes, evaluate.
5. An ideal tank mix combination will be uniform. If any of the following conditions

are observed, question the choice of:

- a. Layer of oil or globules on the mixture's surface.
- b. Flocculation: fine particles in suspension or as a layer on the bottom of the jar.
- c. Clabbering: Thickening texture (coagulated) like gelatin.

SPRAYER CLEANUP

If spray equipment is dedicated to herbicide applications, the following steps are to clean the spray equipment:

- Completely drain the spray tank and rinse the application equipment thoroughly, including the inside and outside of the tank and all in-line screens.

If spray equipment will be used for purposes other than applying herbicides, it must be thoroughly cleaned following application of this product. The following steps must be used to clean the spray equipment:

1. Completely drain the spray tank, rinse the sprayer thoroughly, including the inside and outside of the tank and all in-line screens.
2. Fill the spray tank with clean water and flush all hoses, booms, screens and nozzles.
3. Top off tank, add 1 gallon of 3% household ammonia (or equivalent) for every 100 gallons of water, circulate through sprayer for 5 minutes, and then flush all hoses, booms, screens and nozzles for a minimum of 15 minutes. If diaphragms are being used on the spray boom, loosen diaphragms before flushing the spray system, allowing cleaning solution to spray through the open diaphragm. If spray lines have any end caps, they must be loosened before flushing the system, allowing cleaning solution to spray through the loosened caps. To enhance removal of this product from the spray system, add a tank cleaner for example, "Valent Tank Cleaner" from Valent U.S.A. LLC, in place of ammonia and allow the cleaning solution to remain in the pressurized spray system (spray tank, hoses and boom) overnight before flushing the system for a minimum of 15 minutes.

4. Drain tank completely.
5. Add enough clean water to the spray tank to allow all hoses, booms, screens and nozzles to be flushed for 2 minutes.
6. Remove all nozzles and screens and rinse them in clean water

APPLICATION AND SPRAYER INFORMATION WEEDS CONTROLLED

When this product is applied preemergence or postemergence at directed rates and weed stages, the following grasses and broadleaf weeds are controlled:

Table 1. Weeds Controlled

COMMON NAME	SCIENTIFIC NAME
Alyssum, Hoary	<i>Berteroa incana</i>
Amaranth	
Palmer	<i>Amaranthus palmeri</i>
Spiny	<i>Amaranthus spinosus</i>
American Burnweed	<i>Erechtites hieracifolia</i>
Barnyardgrass*	<i>Echinochloa crus-galli</i>
Beggarweed, Florida	<i>Desmodium tortuosum</i>
Bittercress, Hair	<i>Cardamine hirsuta</i>
Bluegrass, Annual*	<i>Poa annua</i>
Burclover, California	<i>Medicago polymorpha</i>
Carpetweed	<i>Mollugo verticillata</i>
Chamberbitter	<i>Phyllanthus urinaria</i>
Chickweed	
Common	<i>Stellaria media</i>
Mouse-ear	<i>Cerastium vulgatum</i>

*Preemergence control only

(continued)

Table 1. Weeds Controlled (continued)

COMMON NAME	SCIENTIFIC NAME
Crabgrass	
Large*	<i>Digitaria sanguinalis</i>
Smooth*	<i>Digitaria ischaemum</i>
Southern*	<i>Digitaria ciliaris</i>
Croton, Tropic	<i>Croton glandulosus</i> var. <i>septrionalis</i>
Dandelion*	<i>Taraxacum officinale</i>
Dogfennel	<i>Eupatorium capillifolium</i>
Doveweed	<i>Murdannia nudiflora</i>
Eclipta	<i>Eclipta prostrata</i>
Filaree, Redstem*	<i>Erodium cicutarium</i>
Foxtail	
Bristly*	<i>Setaria verticillata</i>
Giant*	<i>Setaria faberi</i>
Green*	<i>Setaria viridis</i>
Yellow*	<i>Setaria glauca</i>
Galinsoga, Hair	<i>Galinsoga ciliata</i>
Geranium, Carolina	<i>Geranium carolinianum</i>
Goosegrass*	<i>Eleusine indica</i>
Groundsel, Common	<i>Senecio vulgaris</i>
Groundsel Tree	<i>Baccharis halimifolia</i>
Henbit	<i>Lamium amplexicaule</i>
Horseweed*	<i>Conyza canadensis</i>
Indigo, Hair	<i>Indigofera hirsuta</i>
Ivy, Ground*	<i>Glechoma hederacea</i>

*Preemergence control only

(continued)

Table 1. Weeds Controlled (continued)

COMMON NAME	SCIENTIFIC NAME
Jimsonweed	<i>Datura stramonium</i>
Kochia	<i>Kochia scoparia</i>
Kyllinga, Green*	<i>Kyllinga brevifolia</i>
Ladysthumb	<i>Polygonum persicaria</i>
Lambsquarters, Common	<i>Chenopodium album</i>
Liverwort	<i>Marchantia polymorpha</i>
Lovegrass, California*	<i>Eragrostis diffusa</i>
Mallow	
Common	<i>Malva neglecta</i>
Little	<i>Malva parviflora</i>
Venice	<i>Hibiscus trionum</i>
Marsh Parsley	<i>Apium leptophyllum</i>
Marsh Yellowcress	<i>Rorippa islandica</i>
Mayweed*	<i>Anthemis cotula</i>
Morningglory	
Entireleaf	<i>Ipomoea hederacea</i> var. <i>integriuscula</i>
Ivyleaf	<i>Ipomoea hederacea</i>
Red/Scarlet	<i>Ipomoea coccinea</i>
Smallflower	<i>Jacquemontia tamnifolia</i>
Tall	<i>Ipomoea purpurea</i>
Moss	<i>Bryum</i> spp.
Mulberry Weed	<i>Fatoua villosa</i>
Mustard	
Tumble	<i>Sisymbrium altissimum</i>
Wild	<i>Brassica kaber</i>

*Preemergence control only

(continued)

Table 1. Weeds Controlled (continued)

COMMON NAME	SCIENTIFIC NAME
Nightshade	<i>Solanum nigrum</i>
Black	<i>Solanum ptycanthum</i>
Eastern Black	<i>Solanum sarrachoides</i>
Hairy	<i>Epilobium cillatum</i>
Northern Willowherb	
Panicum	<i>Panicum dichotomiflorum</i>
Fall*	<i>Panicum texanum</i>
Texas*	<i>Alchemilla arvensis</i>
Parsley-Piert	<i>Sagina procumbens</i>
Pearlwort, Birdseye*	<i>Thlaspi arvense</i>
Pennycress, Field	<i>Phyllanthus tenellus</i>
Phyllanthus, Longstalked	
Pigweed	<i>Amaranthus blitoides</i>
Prostrate	<i>Amaranthus retroflexus</i>
Redroot	<i>Amaranthus hybridus</i>
Smooth	<i>Amaranthus albus</i>
Tumble	<i>Matricaria matricarioides</i>
Pineapple-weed*	
Plantain	<i>Plantago major</i>
Broadleaf*	<i>Plantago lanceolata</i>
Buckhorn*	<i>Euphorbia heterophylla</i>
Poinsettia, Wild	<i>Tribulus terrestris</i>
Puncturevine	<i>Portulaca oleracea</i>
Purslane, Common	<i>Richardia scabra</i>
Pusley, Florida	

*Preemergence control only

(continued)

Table 1. Weeds Controlled (continued)

COMMON NAME	SCIENTIFIC NAME
Ragweed	<i>Ambrosia artemisiifolia</i>
Common	<i>Ambrosia trifida</i>
Giant	<i>Calandrinia ciliata</i>
Redmaids	<i>Melochia corchorifolia</i>
Redweed	<i>Barbarea vulgaris</i>
Rocket, Yellow	<i>Cassia occidentalis</i>
Senna, Coffee	<i>Sesbania exaltata</i>
Sesbania, Hemp	<i>Capsella bursa-pastoris</i>
Shepherd's-Purse	<i>Sida spinosa</i>
Sida, Prickly (Teaweed)	<i>Brachiaria platyphylla</i>
Signalgrass*	<i>Polygonum pensylvanicum</i>
Smartweed, Pennsylvania	<i>Sonchus oleraceus</i>
Sowthistle, Annual	<i>Commelina benghalensis</i>
Spiderwort, Tropical	
Spurge	<i>Euphorbia peplus</i>
Petty	<i>Euphorbia humistrata</i> Engelm
Prostrate	<i>Euphorbia maculata</i>
Spotted	<i>Acanthospermum hispidum</i>
Starbur, Bristly*	<i>Emilia</i> spp.
Tassel-flower	<i>Crassocephalum crepidoides</i>
Thickhead	
Thistle	
Canada*	<i>Cirsium arvense</i>
Russian	<i>Salsola iberica</i>
Velvetleaf	<i>Abutilon theophrasti</i>

*Preemergence control only

(continued)

Table 1. Weeds Controlled (continued)

COMMON NAME	SCIENTIFIC NAME
Waterhemp Common Tall Woodsorrel, Yellow*	<i>Amaranthus rudis</i> <i>Amaranthus tuberculatus</i> <i>Oxalis stricta</i>

*Preemergence control only

AQUATIC WEED CONTROL

This product is a fast-acting contact herbicide that controls selected submersed, emergent and floating aquatic weeds. It is most effective when applied to young, actively growing weeds in water with a pH of less than 8.5.

Apply to the following quiescent or slow-moving bodies of water:

- Bayous
- Canals
- Drainage ditches
- Lakes
- Marshes
- Ponds (including golf course ponds)
- Reservoirs

Application of this product to public aquatic areas may require special approval and/or permits. Consult with local state agencies, if required.

RESTRICTIONS AND LIMITATIONS

- **DO NOT** apply to intertidal or estuarine areas.
- **DO NOT** exceed 400 ppb of this product during any one application.
- **DO NOT** re-treat the same section of water with this product more than 6 times per year.

- **DO NOT** retreat the same section of water within 28 days of application. In areas with dense weed vegetation only treat half the water body at one time and wait 10-14 days before treating the remaining area.
- **DO NOT** use in water utilized for crawfish farming.
- **DO NOT** use treated water for irrigation purposes on food crops until at least five (5) days after application.

PRECAUTIONS

- There is no post-application holding restriction against use of treated water for drinking or recreational purposes (e.g., swimming, fishing).
- Treated water may be used for irrigation purposes on turf and landscape ornamentals as outlined in *Irrigation Restrictions Following Application*.

IRRIGATION RESTRICTIONS FOLLOWING APPLICATION

Application Method	Application Rate	Average Water Depth	Turf and Landscape Ornamentals	Ornamentals grown for production in Greenhouse and Nursery
Surface Spray	6 to 12 fl oz per surface acre	Greater than 3	None	5 days
		Less than 3 feet	12 hours	5 days
Subsurface	Less than 200 ppb	N/A	1 day	5 days
	200 to 300 ppb	N/A	2 days	5 days
	300 to 400 ppb	N/A	3 days	5 days

DIRECTIONS FOR USE TO CONTROL FLOATING AND EMERGED WEEDS USING SURFACE APPLICATION

This product will control weeds and algae listed in Table 2. *Floating and Emerged Weeds* when applied as a broadcast spray with appropriate equipment. For best results, apply this product to the foliage of actively growing weeds.

Table 2. Floating and Emerged Weeds

COMMON NAME	SCIENTIFIC NAME
Alligator Weed	<i>Alternanthera philoxeroides</i>
Duckweed*	<i>Lemna</i> spp.
Frog's-bit	<i>Limnobium spongia</i>
Mosquito Fern**	<i>Azolla</i> spp.
Water Fern	<i>Salvinia</i> spp.
Water Lettuce	<i>Pistia stratiotes</i>
Watermeal*	<i>Wolffia</i> spp.
Water Pennywort**	<i>Hydrocotyle</i> spp.
Filamentous algae**	<i>Pithophara</i>
Filamentous algae**	<i>Cladophora</i>

* Coverage is essential for effective duckweed and watermeal control. Any duckweed and/or watermeal escapes left in the water column will quickly re-infest the water body. Apply 200 ppb concentration throughout the water body to control duckweed and watermeal. – see Directions For Use To Control Submersed and Floating Weeds Using Subsurface Applications section for additional application information.

**Not for use in California.

Surface Application

Apply this product as a broadcast spray at 6 to 12 fl oz of formulated product per acre plus an adjuvant approved for use in aquatics.

This product is a contact herbicide that quickly degrades in the water column so plants that do not initially come in contact with the herbicide will not be controlled. Apply this product in a minimum of 30 gallons of water per acre to all areas of the water body where weeds exist. Coverage is essential for effective control as all floating weeds need to be exposed to lethal concentrations in all parts of the water body. Any untreated escapes or re-introductions of plants that were not treated will re-establish in areas where surface weeds had previously been controlled. If a second application is required to provide control, make a treatment once the return of these weeds is first observed, but no sooner than 28 days after the last treatment.

Application of this product during early morning hours may enhance weed control. When applying to densely packed actively growing surface weeds, ensure adequate coverage. Rapid decomposition of vegetation resulting from herbicide treatment can result in loss of oxygen in water. A sudden decrease in dissolved oxygen can result in fish suffocation. If aquatic vegetation is dense, treat floating surface weeds in sections to prevent a rapid decrease in dissolved oxygen.

This product may be tank mixed with 2,4-D, bispyribac-sodium, diquat, glyphosate or other registered foliar applied herbicides for enhanced control of floating and emergent weeds.

Consult a manufacturer's label for specific rate restrictions and weeds controlled. Always follow the most restrictive label restrictions and precautions for all products used when making an application involving tank mixes.

DIRECTIONS FOR USE TO CONTROL SUBMERSED AND FLOATING WEEDS USING SUBSURFACE APPLICATIONS

This product will control submersed and floating weeds listed in Table 3. *Submersed and Floating Weeds Controlled by Subsurface Application*, when applied subsurface with appropriate equipment.

Table 3. Submersed and Floating Weeds Controlled by Subsurface Application

COMMON NAME	SCIENTIFIC NAME
Coontail	<i>Ceratophyllum demersum</i>
Duckweed	<i>Lemna</i> spp.
Fanwort	<i>Cabomba caroliniana</i>
Hydrilla	<i>Hydrilla verticillata</i>
Hygrophila	<i>Hygrophila polysperma</i>
Naiad, Southern	<i>Najas guadalupensis</i>
Pondweed, Curlyleaf*	<i>Potamogeton crispus</i>
Pondweed, Sago*	<i>Potamogeton pectinatus</i>
Pondweed, Variable Leaf*	<i>Potamogeton diversifolius</i>
Water Fern	<i>Salvinia</i> spp.
Water Lettuce	<i>Pistia stratiotes</i>
Watermeal	<i>Wolffia</i> spp.
Watermilfoil, Eurasian	<i>Myriophyllum spicatum</i>
Watermilfoil, Variable-Leaf	<i>Myriophyllum heterophyllum</i>

*Not for use in California.

Subsurface Treatment

Apply this product at a rate that will produce an initial concentration of 200 to 400 ppb (of active ingredient flumioxazin) in the water column see Table 4. *Subsurface Application Rates.*

This product is rapidly absorbed by target plants, but also breaks down quickly in water with a pH greater than 8.5. The pH of water surrounding mats of submersed vegetation can exceed 8.5 by early to mid-day, due to photosynthetic processes. Application of this product under these conditions may provide only partial weed control, and regrowth is likely. For best control, apply this product in a minimum of 30 gallons of water per acre in the early morning to actively growing weeds and early in the season before surface matting occurs. Complete coverage and sufficient contact time of submersed weeds with this product is required for optimal performance. Application of this product with subsurface trailing hoses designed to distribute the herbicide within the plant stand will provide more effective and longer-term control of submersed weeds. Use Table 4. *Subsurface Application Rates* to determine the amount of this product needed to achieve desired concentration at different water depths. Use higher concentrations when weed biomass is heavy and/or weeds are more mature and topped out. Any untreated plants that are left in the water column can re-infest treated areas that had previously been controlled. If a second application is required to provide control, make a treatment once the return of these weeds is first observed, but no sooner than 28 days after the last treatment.

When applying this product to densely packed actively growing submersed weeds, a rapid decomposition of vegetation resulting from herbicide treatment can result in loss of oxygen in water. A sudden decrease in dissolved oxygen can result in fish suffocation. If aquatic vegetation is dense, treat submersed weeds in sections to prevent a rapid decrease in dissolved oxygen.

This product may be tank mixed with other registered submersed applied herbicides for enhanced control of submersed and floating weeds.

Application Equipment for Water Column Treatment

To improve distribution in the water column and ensure adequate coverage, when possible, apply this product with subsurface trailing hoses in order to place the herbicide under the surface and throughout the biomass of aquatic vegetation. Keep swath width to a minimum in order to maximize contact with submersed aquatic vegetation. In small shallow water bodies, surface sprays may be required to apply this product. Apply by backpack or handgun sprayer or other application equipment that will ensure adequate coverage of target plant.

Information on Hydrilla Control in Florida

Apply this product as a subsurface treatment for hydrilla control. For best control of hydrilla apply during the late Winter/early Spring and/or early to late Fall. Efficacy of this product will be enhanced at these timings due to lower potential biomass present and lower pH of the water. If applied to mature topped out hydrilla, this product will cause some discoloration and loss of growing tips, but regrowth will be rapid.

Tank mix this product with other registered herbicides, especially if hydrilla is approaching maturity or biomass is heavy.

Table 4. Subsurface Application Rates

Water Depth (feet)	Pints of <i>Flumi</i> T&O Herbicide Required Per Surface Acre to Achieve Desired Water Concentration		
	200 ppb	300 ppb	400 ppb
1	1.1	1.6	2.1
2	2.1	3.2	4.2
3	3.2	4.8	6.4
4	4.2	6.4	8.5
5	5.3	8.0	10.6
6	6.4	9.5	12.7
7	7.4	11.1	14.8

Example: to achieve an initial concentration of 200 ppb of flumioxazin in a 4-foot-deep water column, apply 4.2 pt of this product per surface acre.

DIRECTIONS FOR USE TO MAINTAIN BARE GROUND NON-CROP AREAS

This product, when used as directed, can be used for non-selective vegetation control to maintain bare ground non-crop areas that must be kept weed-free. Apply this product only to:

- Bare ground under guard rails, above-ground pipelines, and railroad beds, railroad yards and surrounding areas.
- Bare ground in parking and storage areas, plant sites, substations, pumping stations, and tank farms.
- Bare ground areas of airports, brick yards, industrial plant sites, lumber yards, military installations, and storage areas.
- Bare ground around farm buildings, and along ungrazed fence rows, wind breaks and shelter belts.
- Road surfaces, improved roadside areas, and gravel shoulders.

This product offers residual and postemergence control of susceptible broadleaf and grass weeds as well as additional mode of action to assist in the control of ALS (acetolactate synthase) resistant weeds. See Table 1 under WEEDS CONTROLLED section for a list of broadleaf weeds and grasses. The length of residual control is dependent on the rate applied as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase.

RESTRICTIONS AND LIMITATIONS

- **DO NOT** apply more than 12 fl oz (0.375 lb ai) of this product per acre per application.
- **DO NOT** apply more than 24 fl oz (0.750 lb ai) of this product per acre per year.
- **DO NOT** apply more than 2 applications at 12 fl oz (0.375 lb ai) per acre or 3 applications at 8 fl oz (0.250 lb ai) per acre per year.
- Minimum retreatment interval is 30 days.
- **DO NOT** apply when weather conditions favor spray drift from treated areas.
- **DO NOT** incorporate into soil after application.
- **DO NOT** apply this product through any type of irrigation system.
- **DO NOT** apply to moist or wet desirable plant foliage.
- **DO NOT** apply within 300 feet of non-dormant pome or stone fruit crops.

PRECAUTION

- Application to powdery, dry soil or light sandy soil, or light sandy soil when there is little to no likelihood of rainfall soon after may result in off target movement and possible damage to actively growing susceptible crops when soil particles are moved by wind or water.

PREEMERGENCE APPLICATION

Apply 8 to 12 fl oz of this product per broadcast acre as a preemergence application. Preemergence (to weed emergence) applications of this product must be made to a weed free soil surface. Preemergence applications of this

product must be completed prior to weed emergence. Moisture is necessary to activate this product on soil for residual weed control. Dry weather following application of this product may reduce effectiveness. However, when adequate moisture is received after dry conditions, this product will control susceptible germinating weeds.

POSTEMERGENCE APPLICATION

Apply 8 to 12 fl oz of this product per broadcast acre plus an adjuvant (0.25% v/v non-ionic surfactant or 1 qt per acre crop oil concentrate). The addition of an adjuvant enhances this product activity on emerged weeds. Thorough spray coverage is necessary to maximize the postemergence activity of this product. Emerged weeds are controlled postemergence with this product, however, translocation of this product within a weed is limited, and control is affected by spray coverage and by the addition of an adjuvant. The most effective postemergence weed control with this product occurs when applied in combination with a surfactant to weeds less than 2 inches in height.

DIRECTIONS FOR USE TO MAINTAIN BARE GROUND NON-CROP AREAS IN AND AROUND ORNAMENTAL NURSERIES

This product, when used as directed, can be used for non-selective vegetation control to maintain bare ground non-crop areas that must be kept weed-free. Apply this product only to:

- Bare ground areas around buildings and other structures. **DO NOT** apply within any enclosed structure.
- Bare ground along fence rows.
- Gravel surfaces and driveways.
- Ground matting and gravel pads prior to the addition of containerized plants (conifers, deciduous trees, and ornamentals).

IMPORTANT: Follow all applicable directions as outlined above under General Information. See Table 1 for a list of grasses and broadleaf weeds controlled by this product.

This product offers residual and postemergence control of susceptible grasses and broadleaf weeds as well as additional mode of action to assist in the control of resistant weeds. The length of residual control is dependent on the rate applied as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase.

RESTRICTIONS AND LIMITATIONS

- **DO NOT** apply more than 12 fl oz (0.375 lb ai) of this product per acre per application.
- **DO NOT** apply more than 24 fl oz (0.750 lb ai) of this product per acre per year.
- **DO NOT** apply more than 2 applications at 12 fl oz (0.375 lb ai) or 3 applications at 8 fl oz (0.250 lb ai) per year.
- Minimum retreatment interval is 30 days

PREEMERGENCE APPLICATION

Apply 8 to 12 fl oz per broadcast acre as a preemergence application. Preemergence (to weed emergence) make applications of this product to a weed free surface. Moisture is necessary to activate this product for residual weed control. Dry weather following application of this product may reduce effectiveness. However, when adequate moisture is received after dry conditions, this product will control susceptible germinating weeds.

POSTEMERGENCE APPLICATION

Apply 8 to 12 fl oz per broadcast acre plus a surfactant (0.25% v/v non-ionic surfactant or 1 qt/A crop oil concentrate). The addition of a surfactant enhances this product activity on emerged weeds. Thorough spray coverage is necessary to maximize the postemergence activity of this product. Emerged weeds are controlled postemergence with this product, however, translocation of this

product within a weed is limited, and control is affected by spray coverage and by the addition of a surfactant. The most effective postemergence weed control with this product occurs when applied in combination with a surfactant to weeds less than 2 inches in height.

DIRECTIONS FOR USE IN CONIFER RE-FORESTATION SITES FOLLOWING TIMBER HARVEST

Not for use in California

This product is a preemergence and postemergence herbicide for control of selected grass and broadleaf weeds in conifer re-forestation sites following timber harvest operations. See Table 1. *Weeds Controlled* for a list of broadleaf weeds and grasses. This product may be used as a site preparation treatment prior to transplanting of conifers or as a conifer release treatment after stand establishment.

RESTRICTIONS AND LIMITATIONS

- **DO NOT** apply more than 12 fl oz (0.375 lb ai) of this product per acre per application.
- **DO NOT** apply more than 24 fl oz (0.750 lb ai) of this product per acre per year.
- **DO NOT** apply more than 2 applications at 12 fl oz (0.375 lb ai) or 3 applications at 8 fl oz (0.250 lb ai) per year.
- Minimum retreatment interval is 30 days
- **DO NOT** apply when weather conditions favor spray drift from treated areas.
- **DO NOT** incorporate into soil after application.
- **DO NOT** apply this product through any type of irrigation system.
- **DO NOT** apply to moist or wet desirable plant foliage.
- **DO NOT** apply within 300 feet of non-dormant pome or stone fruit crops.

PRECAUTION

- Application to powdery, dry soil or light sandy soil, or light sandy soil when there is little to no likelihood of rainfall soon after may result in off target movement and possible damage to actively growing susceptible crops when soil particles are moved by wind or water. **DO NOT** apply when these soil and environmental conditions are present.

SITE PREPARATION - Application Before Transplanting

Apply 8 to 12 fl oz of this product per acre. Transplant operations must take place at least 3 months after application. To obtain optimal weed control, apply this product before weed emergence or after a burndown herbicide has controlled existing vegetation. If existing weed canopy is less than 40%, this product may be tank mixed with a burndown herbicide to provide preemergence weed control.

Apply this product in at least 10 gallons of water per acre to achieve uniform spray coverage using ground or aerial spray equipment.

CONIFER RELEASE TREATMENTS - Applications only 3 years after transplanting.

Apply 8 to 12 fl oz of this product per acre over the top of trees prior to budbreak in the spring or after dormancy in fall. **DO NOT** apply this product over the top of trees after budbreak or needle spotting and defoliation may occur. This product should not affect new growth of trees. See Table 5 for a list of tolerant conifers for over the top treatments.

IMPORTANT: When applied as directed, the conifers listed in Table 5. *Tolerant Conifer Species* have shown tolerance to this product. However, this product is a very active herbicide. Exercise responsible judgment and caution until familiarity is gained with this product. If a desired conifer species is not listed in Table 5. *Tolerant Conifer Species*, evaluate the safety of this product on a small number of plants under commercial growing conditions, and monitor plant response for four to six weeks for phytotoxicity. Test this product on a small number of plants to determine if this product can be used safely on a widespread basis. **DO NOT**

apply this product over the top of conifers until trees have been growing in the treated area for at least one year. The use of nylon mesh wraps, commonly used to deter animal browsing, may increase plant injury if placed on plants after over the top application of this product.

Table 5. Tolerant Conifer Species

COMMON NAME	SCIENTIFIC NAME
Arborvitae	
American	<i>Thuja occidentalis</i>
Oriental	<i>Thuja orientalis</i>
Fir	
Concolor	<i>Abies concolor</i>
Cork Bark	<i>Abies lasiocarpa</i>
Douglas	<i>Pseudotsuga menzesii</i>
Fraser	<i>Abies fraseri</i>
Grand	<i>Abies grandis</i>
Noble	<i>Abies procera</i>
Turkish	<i>Abies bommuelleriana</i>
Hemlock	
Eastern	<i>Tsuga Canadensis</i>
Western	<i>Tsuga heterophylla</i>
Juniper	
Blue Star	<i>Juniperus scopularum</i>
Creeping	<i>Juniperus horizontalis</i>
Japanese Garden	<i>Juniperus chinensis</i>
Tamarix	<i>Juniperus Sabina</i>

(continued)

Table 5. Tolerant Conifer Species (continued)

COMMON NAME	SCIENTIFIC NAME
Pine	
Austrian	<i>Pinus nigra</i>
Eastern White	<i>Pinus strobes</i>
Jack	<i>Pinus banksiana</i>
Japanese Black	<i>Pinus thunbergiana</i>
Loblolly	<i>Pinus taeda</i>
Lodgepole	<i>Pinus contorta</i>
Longleaf	<i>Pinus palustris</i>
Mugo	<i>Pinus mugo</i>
Ponderosa	<i>Pinus ponderosa</i>
Sand	<i>Pinus clausa</i>
Scotch	<i>Pinus sylvestris</i>
Shortleaf	<i>Pinus echinata</i>
Slash	<i>Pinus elliotii</i>
Virginia	<i>Pinus virginiana</i>
Spruce	
Blue	<i>Picea pungens</i>
Dwarf Alberta	<i>Picea glauca conica</i>
Norway	<i>Picea abies</i>
Sitka	<i>Picea sitchensis</i>
Yew	
English	<i>Taxus baccata</i>
Japanese	<i>Taxus cuspidate</i>

DIRECTIONS FOR USE IN POPLAR PLANTATIONS AND TIMBER RE-FORESTATION SITES

Not for use in California

This product is a preemergence and postemergence herbicide for control of selected grass and broadleaf weeds in poplar plantations and timber re-forestation sites following timber harvest operations. See Table 1. *Weeds Controlled* for a list of broadleaf weeds and grasses. Use this product as a site preparation treatment prior to transplanting of trees or as a release treatment after stand establishment.

RESTRICTIONS AND LIMITATIONS

- **DO NOT** apply more than 12 fl oz (0.375 lb ai) of this product per acre per application.
- **DO NOT** apply more than 24 fl oz (0.750 lb ai) of this product per acre per year.
- **DO NOT** apply more than 2 applications at 12 fl oz (0.375 lb ai) or 3 applications at 8 fl oz (0.250 lb ai) per year.
- Minimum retreatment interval is 30 days.
- **DO NOT** apply when weather conditions favor spray drift from treated areas.
- **DO NOT** incorporate into soil after application.
- **DO NOT** apply this product through any type of irrigation system.
- **DO NOT** apply to moist or wet desirable plant foliage.
- **DO NOT** apply within 300 feet of non-dormant pome or stone fruit crops.
- **DO NOT** apply this product over the top unless trees are more than one year old.
- **DO NOT** mix this product with any adjuvant or fertilizer when making release treatments.

PRECAUTION

- Treatment of powdery, dry soil or light sandy soil, or light sandy soil when there is little to no likelihood of rainfall soon after may result in off target movement

and possible damage to actively growing susceptible crops when soil particles are moved by wind or water. **DO NOT** apply when these soil and environmental conditions are present.

SITE PREPARATION - Application Before Transplanting

Apply 8 to 12 fl oz of this product per acre. Transplant operations must take place at least 3 months after application. To obtain optimal weed control, apply this product before weed emergence or after a burndown herbicide has controlled existing vegetation. If existing weed canopy is less than 40%, tank mix this product with a burndown herbicide to provide preemergence weed control.

Apply this product in at least 10 gallons of water per acre to achieve uniform spray coverage using ground or aerial spray equipment.

RELEASE TREATMENTS — Applications Within 3 Years After Transplanting

Apply 8 to 12 fl oz per acre over the top of trees prior to budbreak in the spring or after dormancy in fall. Application of this product over the top of trees after budbreak may result in leaf spotting and defoliation.

TANK MIXING — Poplar Release Treatments

Certain liquid formulations of other pesticides may increase the postemergence activity of this product but may also increase the potential for injury when applied over the top of various plants. Therefore, tank mixtures of these materials with this product may be more injurious than this product applied alone and need to be tested to determine if they can be used safely on a widespread basis.

ADJUVANTS — Poplar Release Treatments

When applying Release Treatments, **DO NOT** mix this product with any adjuvant or fertilizer.

IMPORTANT: When applied as directed, poplars (*Populus balsamifera*, *P. niger* and *P. tremuloides*), hybrid poplars (*P. sp. x sp.*), and cottonwoods (*P. deltoids* and *P. trichocarpa*) have shown tolerance to this product. However, this product is a

very active herbicide. Exercise responsible judgment and caution until familiarity is gained with this product. Test this product on a small number of plants to determine if this product can be used safely on a widespread basis.

DIRECTIONS FOR USE ON TURF AND ORNAMENTAL SITES

This product is a preemergence and early postemergence herbicide for control of selected grass and broadleaf weeds in and around ornamental woody shrubs, deciduous trees, and conifers (including Christmas trees) grown outdoors in containers or in the field (in ground), to maintain non-crop areas and dormant Bermudagrass. See Table 1. *Weeds Controlled* section for a list of broadleaf weeds and grasses.

This product controls weeds by inhibiting protoporphyrinogen oxidase, an essential enzyme required by plants for chlorophyll biosynthesis. Seedling weeds are controlled preemergence when exposed to sunlight following contact with the soil applied herbicide.

This product may cause spotting or speckling on foliage if the spray solution directly contacts actively growing plant foliage or green bark. Leaves that receive indirect (drift) spray contact may be affected in a similar manner. Translocation of the herbicide is limited, and under most conditions established and vigorously growing woody ornamentals will rapidly outgrow any injury symptoms. **However, direct application to actively growing foliage can cause severe injury or death with sensitive ornamental plant species, especially in herbaceous bedding plants and flowers.**

RESTRICTIONS AND LIMITATIONS

- **DO NOT** apply more than 12 fl oz (0.375 lb ai) of this product per acre per application.
- **DO NOT** apply more than 24 fl oz (0.750 lb ai) of this product per acre per year.

- **DO NOT** apply more than 2 applications at 12 fl oz (0.375 lb ai) or 3 applications at 8 fl oz (0.250 lb ai) per year.
- Minimum retreatment interval is 30 days.
- **DO NOT** apply in enclosed greenhouse structures if plants are present.
- **DO NOT** move plants for 24 hours into enclosed greenhouses until the area treated with this product has been watered.
- **DO NOT** apply when weather conditions favor spray drift from treated areas.
- **DO NOT** graze treated fields or hay to livestock.
- **DO NOT** incorporate into soil after application.
- **DO NOT** apply this product through any type of irrigation system.
- **DO NOT** apply when plants are under stress from insects, diseases, animals or winter injury, planting shock or any other stresses.
- Only apply to healthy established trees and ornamentals.

IMPORTANT: When applied as directed, plants listed on this label have shown tolerance to this product. Due to variability within species, crop growth stage, environmental conditions and application techniques, evaluate this product under local growing conditions on a small number of plants and evaluate for four to six weeks for phytotoxicity. Testing on a small number of plants will determine if the herbicide can be used safely on a widespread application. Neither the seller nor the manufacturer of this herbicide has investigated the safety to plants not listed on the label.

DIRECTIONS FOR USE IN ESTABLISHED CONTAINER AND FIELD GROWN CONIFERS (INCLUDING CHRISTMAS TREES)

Apply this product as a single or split application to established container and field grown conifers, which includes applications to Christmas tree plantations. The conifers listed in Table 5. *Tolerant Conifer Species* have exhibited tolerance to this product only when the product is applied to dormant or hardened off

plant material. If applied over the top of plant foliage, apply this product before spring bud break or after conifers have sufficiently hardened off. During periods of cool, cloudy weather, use caution to ensure conifers have hardened off prior to herbicide application. **DO NOT** apply to conifers within 1 year of seedling emergence.

RESTRICTIONS AND LIMITATIONS

- **DO NOT** apply more than 12 fl oz (0.375 lb ai) of this product per acre per application.
- **DO NOT** apply more than 24 fl oz (0.750 lb ai) of this product per acre per year.
- **DO NOT** apply more than 2 applications at 12 fl oz (0.375 lb ai) or 3 applications at 8 fl oz (0.250 lb ai) per year.
- Minimum retreatment interval is 30 days.

PREEMERGENCE APPLICATION

Apply 8 to 12 fl oz of this product per broadcast acre before weeds emerge. Apply to weed free, established conifers grown in containers or in the field (in ground). If possible, irrigate treated area with 0.5 to 0.75 inch of water immediately following application. Spray this product directly over conifers listed in Table 5. *Tolerant Conifer Species* provided bud break has not occurred or plants are hardened off. Needle burn may be observed on new flush if plants are actively growing at time of application. However, this product will typically not affect subsequent growth. If conifers are not dormant or hardened off at time of application, and foliar injury cannot be tolerated, apply this product as a directed spray, taking care to minimize direct contact or drift of sprays onto foliage. Mechanically incorporating this product after application will disturb soil surfaces, which may reduce herbicidal efficacy. When applied before weed germination, this product will control broadleaf and grassy weeds listed in Table 1. *Weeds Controlled.*

POSTEMERGENCE APPLICATION

Apply 8 to 12 fl oz of this product per broadcast acre after weeds have emerged. This product may be sprayed directly over conifers listed in Table 5. *Tolerant Conifer Species* provided bud break has not occurred or plants are hardened off. Needle burn may be observed on new flush if plants are actively growing at time of application. However, this product will typically not affect subsequent growth. If conifers are not dormant or hardened off at the time of application, and foliar injury cannot be tolerated, apply this product as a directed spray, taking care to minimize direct contact or drift of sprays onto foliage.

If applied when weeds are actively growing and no larger than 2 inches in height, this product will provide postemergence control of broadleaf weeds and grasses listed in Table 1. *Weeds Controlled*. Postemergence control of this product may be more effective with certain weed species, and may not control mature, stressed, or hardened off weeds that are not actively growing at the time of application.

TOLERANT CONIFERS

This product may be applied to the conifer species listed in Table 5. *Tolerant Conifer Species*. If a desired conifer species is not listed in Table 5. *Tolerant Conifer Species*, evaluate the safety of this product on a small number of plants under commercial growing conditions, and monitor plant response for four to six weeks for phytotoxicity. Testing this product on a small number of plants will determine if this product can be used safely on a widespread basis.

DIRECTIONS FOR USE IN CONTAINER AND FIELD GROWN DECIDUOUS TREES AND NON-BEARING FRUIT AND NON-BEARING NUT TREES

This product may be applied as single or split applications to container and field grown deciduous trees with an established root system. The deciduous trees listed in Table 6 have exhibited tolerance to this product only when applied to the

soil and base of plants. Application of this product to deciduous foliage or green bark may result in unacceptable injury.

This product may be applied to established (or transplanted) container and field grown deciduous trees. **DO NOT** apply to trees that are less than one year old or have been transplanted less than one year, unless completely protected by non-porous wraps, grow tubes, waxed protectors or other forms of protection to young foliage and/or bark. **DO NOT** harvest fruit or nuts from treated trees within one year of application.

IMPORTANT: Direct application of this product to the soil surface and away from plant foliage and bark. Direct spray contact on plant surfaces, foliage and green bark may result in injury. Application of this product after bud swell may cause injury if herbicide contacts foliage. **DO NOT** apply under environmental conditions that favor drift to non-targeted areas.

RESTRICTIONS AND LIMITATIONS

- **DO NOT** apply more than 12 fl oz (0.375 lb ai) of this product per acre per application.
- **DO NOT** apply more than 24 fl oz (0.750 lb ai) of this product per acre per year.
- **DO NOT** apply more than 2 applications at 12 fl oz (0.375 lb ai) or 3 applications at 8 fl oz (0.250 lb ai) per year.
- Minimum retreatment interval is 30 days.

PREEMERGENCE APPLICATION

Apply 8 to 12 fl oz of this product per broadcast acre as a preemergence (to weed emergence) application. Apply this product to weed free deciduous trees grown in containers or in the field (in-ground). If possible, irrigate treated area with 0.5 to 0.75 inch of water immediately following application. Apply this product to the soil surface and base of deciduous trees, provided that direct and indirect (drift) applications to plant foliage, flowers and green bark does not occur. Mechanically incorporating this product will disturb soil surfaces, which may reduce herbicidal

efficacy. The use of spray shields that limit exposure of foliage and bark to this product is suggested. When applied before weed germination, this product will control broadleaf and grassy weeds in Table 1. *Weeds Controlled.*

POSTEMERGENCE APPLICATION

Apply 8 to 12 fl oz of this product per broadcast acre plus an adjuvant (0.25% v/v non-ionic surfactant or 1 qt per acre crop oil concentrate). Make postemergence (to weed emergence) applications of this product when weeds are actively growing and are no larger than 2 inches in height. The addition of a surfactant enhances this product activity on emerged weeds. Thorough spray coverage is necessary to maximize the postemergence activity of this product. When applied after weed germination, this product will provide preemergence and postemergence control of broadleaf weeds and grasses listed in Table 1. *Weeds Controlled.* If plant injury is a concern, use a spray shield to limit the exposure of trees to this product.

Postemergence control may be more effective with certain weed species, and may not control mature, stressed or hardened off weeds that are not actively growing at the time of application.

TANK MIXTURES FOR FIELD AND CONTAINER GROWN DECIDUOUS TREES

Tank mixing this Herbicide with other preemergence and postemergence herbicides registered for use on deciduous trees may provide a broader spectrum of weed control than this Herbicide applied alone. Apply as part of a postemergence burndown program for control of annual and perennial weeds. Tank mixing with glyphosate will increase the speed of burndown compared to glyphosate applied alone. Tank mix with products containing the following active ingredients labeled for use in deciduous trees:

clethodim	oryzalin	simazine*
glyphosate*	pendimethalin	
metolachlor	prodiamine	

***DO NOT** apply glyphosate or simazine to containerized ornamentals.

TOLERANT DECIDUOUS TREES, NON-BEARING FRUIT AND NON-BEARING NUT TREES

This product may be applied as a directed spray to the deciduous, non-bearing fruit and non-bearing nut trees species listed in Table 6. If a desired tree species is not listed in Table 6, evaluate the safety of this product on a small number of plants under commercial growing conditions and monitor plant response for four to six weeks for phytotoxicity. Testing this product on a small number of plants will determine if this product can be used safely on a widespread basis.

Table 6. Tolerant Deciduous Tree Species

COMMON NAME	SCIENTIFIC NAME
Apricot*	<i>Prunus</i> spp.
Ash	<i>Fraxinus</i> spp.
Birch	<i>Betula</i> spp.
Buckeye	<i>Aesculus</i> spp.
Cherry*	<i>Prunus</i> spp.
Chestnut	<i>Castanea</i> spp.
Citrus*	<i>Citrus</i> spp.
Dogwood	<i>Cornus</i> spp.
Eucalyptus	<i>Eucalyptus</i> spp.
Ginkgo	<i>Ginkgo</i> spp.

(continued)

Table 6. Tolerant Deciduous Tree Species (continued)

COMMON NAME	SCIENTIFIC NAME
Hawthorn	<i>Crataegus</i> spp.
Honeylocust	<i>Gleditsia</i> spp.
Larch	<i>Larix</i> spp.
Lilac	<i>Syringa</i> spp.
Maple**	<i>Acer</i> spp.
Mrytle, Crepe	<i>Lagerstroemia indica</i>
Oak	<i>Quercus</i> spp.
Poplar	<i>Populus</i> spp.
Peach*	<i>Prunus</i> spp.
Plum*	<i>Prunus</i> spp.
Pecan*	<i>Carya</i> spp.
Redbud	<i>Cercis canadensis</i>
Sweetgum	<i>Liquidambar styraciflua</i>
Sycamore	<i>Platanus</i> spp.
Walnut, Black	<i>Juglans nigra</i>
Willow	<i>Salix</i> spp.

*Non-bearing trees only.

**Not for use on maple trees used for production of maple sap or syrup.

DIRECTIONS FOR USE AROUND ESTABLISHED WOODY LANDSCAPE ORNAMENTALS AND TO MAINTAIN NON-CROP AREAS

In residential and commercial landscapes, this product may only be applied by commercial licensed applicators. Application of this product in the vicinity of ornamental plants is limited to directed sprays around well-established woody shrubs and trees including azalea, euonymus, holly, and the conifers and deciduous trees listed in Tables 5 and 6. This product may also be applied

to maintain weed control in non-crop areas in apartment complexes, fence rows, gravel surfaces and driveways, ground mats and pads prior to the addition of containerized plants, golf courses, lumberyards, office complexes, parks, parking areas, recreational sites, schools, sidewalks, storage areas, grass water waterways, rain gardens, and other similar industrial sites. **DO NOT** apply this product within any enclosed structure in residential or commercial landscapes.

This product offers postemergence and residual control of susceptible grasses and broadleaf weeds, as well as additional mode of action to assist in the control of resistant weeds. See Table 1. *Weeds Controlled* for a list of broadleaf weeds and grasses. The length of residual control is dependent on the rate applied, rainfall and temperature. Length of residual control will decrease as temperature and precipitation increase.

IMPORTANT: Contact with spray or spray drift of this product may cause severe injury or destruction of certain desirable plants, especially herbaceous species including bedding plants or direct seeded annual and perennial flowers. Therefore, **DO NOT** apply this product over the top of ornamental plants growing in the landscape, and **DO NOT** allow spray of this product to contact, drift or splash from soil onto the foliage, green stems, exposed roots or fruit of desirable plants. **DO NOT** apply this product under conditions that favor drift of sprays onto desired ornamentals or turfgrass. The use of spray shields that limit the plant exposure to this product is directed when applying this product near desirable plants.

DO NOT apply this product around landscape ornamentals until plants have been actively growing for at least 30 days after transplanting, or for at least two months before ornamentals will be planted into treated areas.

RESTRICTIONS AND LIMITATIONS

- **DO NOT** apply more than 12 fl oz (0.375 lb ai) of this product per acre per application.

- **DO NOT** apply more than 24 fl oz (0.750 lb ai) of this product per acre per year.
- **DO NOT** apply more than 2 applications at 12 fl oz (0.375 lb ai) or 3 applications at 8 fl oz (0.250 lb ai) per year.
- Minimum retreatment interval is 30 days.
- **DO NOT** harvest fruit or nuts from treated trees within one year of application.

PREEMERGENCE APPLICATION (NO WEEDS ARE PRESENT)

Mix 0.27 fl oz of this product per gallon of spray solution and apply 1 gallon of spray solution to 1,000 sq ft (12 fl oz/A) prior to weed germination (see Backpack Application table for more options and details). Apply this product to weed free soil, mulch or gravel surfaces. Moisture is necessary to activate this product on soil for residual weed control. When applied before weed germination, this product will control the broadleaf weeds and grasses listed in Table 1. *Weeds Controlled.*

Established landscape ornamentals have shown tolerance to this product **only** when applied to the soil at the base of the plant. For maximum plant safety when using around desirable ornamentals, direct applications of this product to the soil, and leave a sufficient untreated buffer to ensure spray solution does not contact desired plants.

POSTEMERGENCE APPLICATION (WEEDS ARE PRESENT)

Mix 0.27 fl oz (8.1 ml) of this product per gallon of spray solution and apply 1 gallon of spray solution to 1,000 sq ft (12 fl oz/A) to actively growing weeds (see Application chart for backpack sprayers). Tank mixing this product with glyphosate will increase the spectrum of postemergence weed control over this product alone, provide faster postemergence weed control than glyphosate alone, and provide preemergence and postemergence control of the broadleaf weeds and grasses listed in Table 1. *Weeds Controlled.*

Established landscape ornamentals have shown tolerance to applications of this product plus glyphosate **only** when applied to the soil at the base of the plant, and sprays do not directly contact or drift onto desirable plants. For maximum

plant safety when using around desirable ornamentals, direct applications of this product plus glyphosate towards the soil and leave a sufficient non-treated buffer to ensure spray solution does not contact desired plants.

Thorough spray coverage of weeds is necessary to maximize weed control. Spray coverage must be uniform, but not to the point of runoff.

IMPORTANT: Completely read and follow the glyphosate label. When tank mixing this product with other products, always follow the most restrictive use conditions on either label.

DIRECTIONS FOR USE ON BERMUDAGRASS GROWN ON RESIDENTIAL SITES, GOLF COURSES, SOD PRODUCTION AND SIMILAR AREAS

Apply this product as a single or split application to well-established dormant Bermudagrass. This product will provide preemergence and early postemergence control of annual bluegrass, chickweed, henbit and other winter annual weeds. See Table 1. *Weeds Controlled* for a list of broadleaf weeds and grasses. This product will also provide preemergence control of crabgrass, goosegrass, and other summer annual weeds. Apply this product to dormant turfgrasses listed in Table 7. *Tolerant Turfgrass Species* in such areas as apartment complexes, golf courses, sod farms, roadsides, sports fields, campgrounds, office complexes, parks, parking areas, recreational sites, schools, residential turf and other similar sites. Bermudagrass exhibits tolerance to this product only when applied to semi-dormant or completely dormant turf in the late fall and before active growth resumes in the late winter/early spring. Application of this product to actively growing turfgrass (warm season and cool season) or during green-up may cause unacceptable injury.

RESTRICTIONS AND LIMITATIONS

- **DO NOT** apply more than 12 fl oz (0.375 lb ai) of this product per acre per application.

- **DO NOT** apply more than 24 fl oz (0.750 lb ai) of this product per acre per year.
- **DO NOT** apply more than 2 applications at 12 fl oz (0.375 lb ai) or 3 applications at 8 fl oz (0.250 lb ai) per year.
- Minimum retreatment interval is 30 days
- **DO NOT** apply to golf course putting greens.
- **DO NOT** apply to warm season turfgrass that has been overseeded with cool season turfgrass (ex. perennial rye, *Poa trivialis*).
- **DO NOT** irrigate within 1 hour before or after application.
- **DO NOT** apply if rain is expected within 1 hour after application.
- **DO NOT** mow turfgrass within 12 hours after application.
- **DO NOT** apply within 30 days prior to cutting or lifting sod.
- **DO NOT** apply in fall before turfgrass has ceased active growth or in late winter/early spring after turfgrass has resumed active growth.

PRECAUTIONS

- Allow 8 weeks between application and seeding or sodding of turfgrass.
- Exercise good judgment and caution when applying to dormant turfgrass until familiarity is gained with this product.

USE AROUND BENTGRASS AND POA GREENS

This product has limited potential for lateral movement on level terrain but can potentially move down slope after excessive rainfall and affect sensitive turf species including bentgrass and *Poa trivialis*. When applied upslope from bentgrass greens or Bermudagrass greens overseeded with *Poa trivialis*, allow an adequate buffer zone between greens and the treated area. If uncertain about the size of the buffer, 15 feet is suggested.

Risk of movement is decreased when this product is applied to soil at less than field capacity. **DO NOT** apply when heavy rain is imminent or when the soil is saturated.

BROADCAST APPLICATIONS

Apply 8 to 12 fl oz per broadcast acre as a preemergence (to weed emergence) application. If weeds are present at the time of application apply this product plus an adjuvant (0.25% v/v non-ionic surfactant). Make postemergence (to weed emergence) applications of this product when weeds are actively growing and no larger than 2 inches in height. Thorough spray coverage is necessary to maximize the postemergence activity of this product. When applied after weed germination, this product will provide preemergence and postemergence control of broadleaf weeds and grasses listed in Table 1. *Weeds Controlled.* Postemergence control of this product may be more effective on certain weed species, and may not control mature, stressed, or hardened off weeds that are not actively growing at the time of application.

This product will provide best control of annual bluegrass when applied in the late fall while plants are small. Control may be less effective when applied in the winter under cold conditions when weeds are not actively growing. A second application of this product may be required to provide adequate season-long annual bluegrass control. This product will provide best control of crabgrass, goosegrass and other summer annual weeds when applied in the late winter before turfgrass resumes active growth.

SPOT TREATMENTS

Mix 2 1/2 tsp per gallon of this product and 2 tsp (1/3 fl oz) of non-ionic surfactant in one gallon of water and apply one gallon of spray solution per 1,000 sq ft. Occasionally shake the spray solution while spraying to ensure the spray solution remains well mixed. Spray the target weeds until the leaves are wet.

TANK MIXING WITH OTHER TURFGRASS HERBICIDES

This product will suppress, but will not effectively control, established winter perennial weeds including dandelion and clover. Tank mix with metsulfuron to control winter perennial weeds.

IMPORTANT: If applied in the fall to semi-dormant turfgrass, this herbicide may accelerate dormancy. If applied in the spring after turfgrass resumes active growth, this herbicide will cause temporary discoloration of turf and delay green-up. Read and follow the label of any herbicides mixed with this product. When tank mixing with other herbicides, always follow the most restrictive limitations and precautions on the label of any tank mix partner.

Table 7. Tolerant Turfgrass Species

COMMON NAME	SCIENTIFIC NAME
Bermudagrass	<i>Cynodon</i> spp.

STORAGE AND DISPOSAL

DO NOT contaminate water, food or feed by storage or disposal.

STORAGE

Keep pesticide in original container.

Store in a cool, dry, secure place.

DO NOT put formulation or dilute spray solution into food or drink containers.

DO NOT contaminate food or foodstuffs.

DO NOT store or transport near feed or food.

Not for use or storage in or around the home.

For help with any spill, leak, fire, or exposure involving this material, call day or night **(800) 892-0099**

PESTICIDE DISPOSAL

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

CONTAINER HANDLING

Nonrefillable container. **DO NOT** reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling, if available or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

**RISKS OF USING THIS PRODUCT,
LIMITED WARRANTY AND DISCLAIMER,
AND LIMITATION OF LIABILITY**

IMPORTANT: Read the entire Label including this section titled Risks of Using this Product, Limited Warranty and Disclaimer, and Limitation of Liability before using this product. If the terms are not acceptable **THEN DO NOT USE THE PRODUCT**; rather, return the unopened product within 15 days of purchase for a refund of the purchase price.

RISKS OF USING THIS PRODUCT

The buyer and user (referred to collectively herein as "Buyer") of this product should be aware that there are inherent unintended risks associated with the use of this product which are impossible to eliminate. Such risks of crop injury, non-performance, resistance or other unintended consequences are unavoidable and may result because of such factors as weather, soil conditions, disease, moisture conditions, irrigation practices, condition of the crop at the time of application, presence of other materials either applied in the tank mix with this product or prior to application of this product, cultural practices or the manner of use or application, (or a combination of such factors) all of which are factors beyond the control of Valent. If the Buyer chooses not to accept these risks, **THEN THIS PRODUCT SHOULD NOT BE APPLIED**. By applying this product Buyer acknowledges and accepts these inherent unintended risks **AND TO THE FULLEST EXTENT ALLOWED BY LAW, AGREES THAT ALL SUCH RISKS ASSOCIATED WITH THE APPLICATION AND USE ARE ASSUMED BY THE BUYER**. The Directions for Use of this product must be followed carefully. Valent shall not be responsible for losses or damages (including, but not limited to, loss of yield, increased expenses of farming the crop or such incidental, consequential, or special damages that may be claimed) resulting from use of this product in any manner not set forth on the label. To the extent consistent with applicable

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law, Buyer assumes all risks associated with the use of this product in any manner or under conditions not specifically directed or approved on the label.

LIMITED WARRANTY AND DISCLAIMER

Valent warrants only that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the label, under average use conditions, when used strictly in accordance with the label **and subject to the Risks of Using This Product as described above. To the extent consistent with applicable law, VALENT MAKES NO OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED.** No agent or representative of Valent or Seller is authorized to make or create any other express or implied warranty.

LIMITATION OF LIABILITY

To the fullest extent allowed by law, Valent or Seller is not liable for any incidental, consequential, indirect or special damages resulting from the use or handling of this product. TO THE FULLEST EXTENT ALLOWED BY LAW, THE EXCLUSIVE REMEDY OF THE BUYER, AND THE EXCLUSIVE MAXIMUM LIABILITY OF VALENT OR SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT SHALL BE THE RETURN OF THE PURCHASE PRICE OF THIS PRODUCT OR, AT THE ELECTION OF VALENT OR SELLER, THE REPLACEMENT OF THE PRODUCT.

PROMPT NOTICE OF CLAIM

To the extent consistent with applicable law allowing such requirements, Valent must be provided notice as soon as Buyer has reason to believe it may have a claim, but in no event later than twenty-one days from date of planting, or twenty-one days from the date of application, whichever is later, so that an immediate inspection of the affected property and growing crops can be made.

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To the extent consistent with applicable law, if Buyer does not notify Valent of any claims, in such period, it shall be barred from obtaining any remedy.

NO AMENDMENTS

Valent and Seller offer this product, and Buyer accepts it, subject to the foregoing **Risks of Using This Product, Limited Warranty and Disclaimer, and Limitation of Liability**, which may not be modified by any oral or written agreement.

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Manufactured for:

Valent U.S.A. LLC

P.O. Box 5075

San Ramon CA 94583

(800) 682-5368

Made in U.S.A.

Form 2487-A

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Always check with your state to verify state registration status or call 800-89-VALENT (898-2536).



For state registration and/or supplemental labels, please call or visit us online.

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