


Drexel®

# Imitator® Aquatic

## Herbicide

For control of Annual and Perennial weeds and woody plants in Forests, Non-crop sites and in and around Aquatic sites; also for use in Wildlife habitat areas, for Perennial grass release, Grass growth suppression and grazed areas on these sites.

Avoid contact of herbicide with foliage, green stems, exposed non-woody roots or fruit of crops, desirable plants and trees, because severe injury or destruction may result.

### ACTIVE INGREDIENT:

Glyphosate, N-(phosphonomethyl)glycine in the form of its isopropylamine salt\* ..... 53.8%

OTHER INGREDIENTS: ..... 46.2%

TOTAL: ..... 100.0%

\* Contains 648 grams per litre or 5.4 pounds per U.S. gallon of active ingredient Glyphosate, in the form of its isopropylamine salt. Equivalent to 480 grams per litre or 4 pounds per U.S. gallon of the acid, Glyphosate.

**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

See FIRST AID Below

[See Side (Back) Panel for FIRST AID]

[See Page \_\_\_\_ for FIRST AID]

[See Container Labeling for (FIRST AID and Complete Directions for Use]

[See (Attached) Booklet (Container Labeling) for Complete Directions for Use]

EPA Reg. No. 19713-623

Net Content:

EPA Est. No. 19713-TN-3

2.5 Gals. (9.46 L)

### FIRST AID

#### IF INHALED:

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.
- Call a poison control center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also call CHEMTREC at 800-424-9300 for emergency medical treatment information.

### PRECAUTIONARY STATEMENTS

#### Hazards to Humans and Domestic Animals

**CAUTION:** Harmful if inhaled. Avoid breathing spray mist. Remove contaminated clothing and wash clothing before reuse. Wash thoroughly with soap and water after handling.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

**Applicators and other handlers must wear:** Long-sleeved shirt, long pants and shoes plus socks.

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.

#### ENGINEERING CONTROLS

When handlers use closed systems, enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for Agricultural Pesticides 170.607(d-f)], the handler PPE requirements may be reduced or modified as specified in the WPS.

### USER SAFETY RECOMMENDATIONS

**Users should:** 1) Wash hands thoroughly before eating, drinking, chewing gum, using tobacco or using the toilet. 2) Remove clothing/PPE immediately if pesticide gets inside. 3) Remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

Read the entire label before using this product. Use only according to label instructions.

Not all products specified on this label are registered for use in California. Check the registration status of each product in California before using. Read "WARRANTY—CONDITIONS OF SALE" statement at the end of the label before buying or using. If terms are not acceptable, return at once unopened.

### ENVIRONMENTAL HAZARDS

Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Treatment of aquatic weeds can result in oxygen depletion or loss due to decomposition of dead plants. This oxygen loss can cause fish suffocation.

In case of spill or leak, soak up and remove to a landfill.

### PHYSICAL OR CHEMICAL HAZARDS

Mix, store and apply spray solutions of this product using only stainless steel, fiberglass, plastic and plastic-lined steel containers. DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. Glyphosate or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode causing serious personal injury if ignited by open flame, spark welder's torch, lighted cigarette or other ignition source.

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Manufactured By:

**Drexel Chemical Company**

P.O. Box 13327, Memphis, TN 38113-0327

**SINCE 1972**

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## AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS), 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, 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 (REI). The requirements in this box only apply to uses of this product that are covered by the WPS.

Do not enter or allow worker entry into treated areas during the REI of 4 hours.

PPE required for early entry to treated areas that is permitted under the WPS and that involves contact with anything that has been treated, such as plants, soil or water is: Coveralls, chemical-resistant gloves made of any waterproof material and shoes plus socks.

## NON-AGRICULTURAL USE REQUIREMENTS

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

Keep people and pets off treated areas until spray solution has dried.

## USE INFORMATION

IMITATOR AQUATIC HERBICIDE is a water-soluble liquid, which mixes readily with water and non-ionic surfactants to be applied as a foliar spray for the control or destruction of many Herbaceous and Woody plants. This product is intended for control of Annual and Perennial weeds and Woody plants in forests, pine straw plantations, Non-crop sites including Utility Rights-of-Way and in and around aquatic sites; also for use in wildlife habitat areas, for Perennial grass release and Grass growth suppression and grazed areas on these sites.

The active ingredient in this product moves through the plant from the point of foliage contact to and into the root system. Visible effects on most Annual weeds occur within 2 to 4 days but on most Perennial brush species may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow the activity of this product and delay visual effects of control. Visible effects include gradual wilting and yellowing of the plant which advances to complete browning of above ground growth and deterioration of underground plant parts. Unless otherwise directed on this label, delay application until vegetation has emerged and reached the stages described for control of such vegetation under the "WEEDS CONTROLLED" section of this label. Unemerged plants arising from unattached underground rhizomes or root stocks of Perennials will not be affected by the spray and will continue to grow. For this reason, best control of most Perennial weeds is obtained when treatment is made at late growth stages approaching maturity.

Always use the higher rate of this product per acre with the labeled range when weed growth is heavy or dense, when treating dense multi-canopied sites or Woody vegetation or difficult-to-control Herbaceous or Woody plants.

Do not treat weeds, brush or trees under poor growing conditions such as drought stress, disease or insect damage as reduced weed control may result. Reduced control or target vegetation may also occur if foliage is heavily covered with dust.

Reduced control may also result when applications are made to Woody plants or weeds following site disturbance or plant top growth removal from grazing, mowing, logging or mechanical brush control. For best results, delay treatment of such areas until resprouting and foliar growth has restored the target vegetation to the specified stage of growth for optimum herbicide exposure and control.

Rainfall or irrigation occurring within 6 hours after application may reduce effectiveness. Heavy rainfall or irrigation within 2 hours after application may wash the product off the foliage and a repeat treatment may be required.

This product does not provide residual weed control. For subsequent residual weed control, follow a label-approved herbicide program. Read and carefully observe the "PRECAUTIONARY STATEMENTS" section and all other information appearing on the labels of all products used.

**Note:** The maximum rates stated throughout this product's labeling apply to this product combined with the use of all other herbicides containing Glyphosate or Sulfosate as the active ingredient, whether

applied as mixtures or separately. Calculate the application rates and ensure that the total use of this and other Glyphosate or Sulfosate containing products does not exceed the maximum use rates.

**Grazing Restrictions:** This product may be used to treat undesirable vegetation in Utility Rights-of-Way that pass through Pastures, Rangeland and Forestry sites that are being grazed. For tank-mix applications, comply with all restrictions appearing on the tank-mix product label.

Except for lactating dairy animals, there are no grazing restrictions following the labeled applications of this product.

- For lactating dairy animals, there are no grazing restrictions for the following labeled applications of this product:

- i) Where the spray can be directed onto undesirable Woody brush and trees, such as in handgun spray-to-wet or low-volume directed spray treatments.

- ii) For tree injections of frill applications and for cut stump treatments.

- For broadcast applications, observe the following restrictions for lactating dairy animals:

- i) For application rates of greater than 4.5 but not to exceed 7.5 quarts per acre, no more than 15% of the available grazing area may be treated.

- ii) For application rates that do not exceed 4.5 quarts per acre, no more than 25% of the available grazing area may be treated.

- These restrictions do not apply to Pastures, Rangeland or Forestry sites outside of Utility Rights-of-Way.

**NOTE:** Use of this product in any manner not consistent with this label may result in injury to persons, animals, crops or other unintended consequences. When not in use, keep container closed to prevent spills and contamination.

To the extent consistent with applicable law, Buyer and users are responsible for all loss or damage in connection with the use or handling of mixtures of this product or other materials that are not specified in this label. Mixing this product with herbicides or other materials not specified on this label may result in reduced performance.

**ATTENTION: AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.**

Do not allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants or other areas on which treatment was not intended. The likelihood of plant or crop injury occurring from the use of this product is greatest when winds are gusty or in excess of 5 miles per hour or when other conditions, including lesser wind velocities, will allow spray drift to occur. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or fine particles (mist) which are likely to drift. AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE.

## WEED RESISTANCE MANAGEMENT

### GLYPHOSATE | GROUP 9 | HERBICIDE

For resistance management, this product is a Group 9 mode of action herbicide. Any weed population may contain or develop plants naturally resistant to this product and other Group 9 mode of action herbicides. The resistant biotypes may dominate the weed population if these 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 this product or other Group 9 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.

- 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.

- 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, 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.

For further information or to report suspected resistance, contact Drexel Chemical Company representatives at (901) 774-4370

## SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all of these factors when making decisions.

## AERIAL SPRAY DRIFT MANAGEMENT

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to Forestry applications or to public health uses.

1. The distance of the outermost nozzles on the boom must not exceed three-fourths of the length of the wingspan or rotor.
2. Nozzles must always point backward, parallel with the airstream and never be pointed downward more than 45 degrees. Where States have more stringent regulations, they must be observed.

**Importance of Droplet Size:** The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly or under unfavorable environmental conditions (see the “Wind”, “Temperature and Humidity” and “Temperature Inversion” sections of this label).

## Controlling Droplet Size

- **Volume:** Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with the higher rated flows produce larger droplets.
- **Pressure:** Use the lower spray pressures specified for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of Nozzles:** Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation:** Orienting nozzles so that the spray is released backward, parallel to the airstream, will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type:** Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.
- **Boom Length:** For some use patterns, reducing the effective boom length to less than three-fourths of the wingspan or rotor length may further reduce drift without reducing swath width.
- **Application Height:** Applications must not be made at a height greater than 10 feet above the top of the target plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces the exposure of the droplets to evaporation and wind.

**Swath Adjustment:** When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance must increase with increasing drift potential (higher wind, smaller droplets, etc.).

**Wind:** Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application must be avoided below 2 mph due to variable wind direction and high inversion potential.

**Note:** Local terrain can influence wind patterns. Every applicator must be familiar with local wind patterns and how they affect drift.

**Temperature and Humidity:** When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

**Temperature Inversions:** Do not make applications during temperature inversions. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog. However, if fog is not present, inversions can also be identified 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.

**Sensitive Areas:** This pesticide may only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas\*, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

**\*Intended to be applied by certified/professional applicators.**

## MIXING AND APPLICATION INSTRUCTIONS

Apply these spray solutions in properly maintained and calibrated equipment capable of delivering desired volumes. Properly direct handgun applications to avoid spraying desirable plants. **Note:** Reduced results may occur if water containing soil is used, such as water from ponds and unlined ditches.

## Mixing

This product mixes readily with water. Mix spray solutions of this product as follows:

1. Fill the mixing or spray tank with the required amount of water while adding the required amount of this product (see the “DIRECTIONS FOR USE” and “WEEDS CONTROLLED” sections of this label).
2. Near the end of the filling process, add the required surfactant and mix well. Remove hose from tank immediately after filling to avoid siphoning back into the water source.

**Note:** If tank-mixing with Triclopyr herbicide, ensure that Triclopyr is well mixed with at least 75% of the total spray volume before adding this product to the spray tank to avoid incompatibility.

During mixing and application, foaming of the spray solution may occur. To prevent or minimize foam, avoid the use of mechanical agitators, place the filling hose below the surface of the spray solution (only during filling), terminate bypass and return lines at the bottom of the tank and if needed, use an approved anti-foam or defoaming agent. Keep bypass line on or near the bottom of tank to minimize foaming. Screen size in nozzle or line strainers should be no finer than 50 mesh. Carefully select correct nozzle to avoid spraying a fine mist. For best results with conventional ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

**IMPORTANT:** When using this product, unless otherwise specified, mix with a surfactant such as a non-ionic surfactant containing 80% or greater active ingredient. For Conifer release (Pine release), use only surfactants that are approved for Conifer release and specified on the surfactant label as safe for use in Conifer release (Pine release). Always read and follow the manufacturer’s surfactant label directions for best results.

**Colorants or Dyes:** Colorants or marking dyes approved for use with herbicides may be added to this product. Colorants or dyes used in spray solutions of this product may reduce performance, especially at lower rates or dilution. Use colorants or dyes according to the manufacturer’s directions.

Clean sprayer and parts immediately after using this product by thoroughly flushing with water and dispose of rinsate according to labeled use or disposal instructions.

Carefully observe all precautionary statements and other information appearing in the surfactant label.

## APPLICATION EQUIPMENT AND TECHNIQUES

**ATTENTION:** AVOID DRIFT. EXTREME CARE MUST BE EXERCISED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.



The likelihood of plant or crop injury occurring from the use of this product is greatest when winds are gusty or in excess of 5 miles per hour or when other conditions, including lesser wind velocities, will allow spray drift to occur. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or fine particles (mist) which are likely to drift. **AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE.**

**Use Restriction:** DO NOT allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to crops, plants or other areas on which the treatment was not intended.

**Note:** Use of this product in a manner not consistent with this label may result in injury to persons, animals, crops or other unintended consequences. When not in use, keep container closed to prevent spills and contamination.

## **AERIAL EQUIPMENT**

**For aerial application in California:** See section on *“AERIAL APPLICATION IN CALIFORNIA ONLY”*.

**For control of weed or brush species listed in this label using aerial equipment:** For aerial broadcast application, unless otherwise specified, apply the rates of this product and surfactant suitable for broadcast application in a spray volume of 3 to 20 gallons of water per acre. See the *“WEEDS CONTROLLED”* section of this label for labeled Annual and Herbaceous weeds and Woody plants and broadcast rates. Aerial applications of this product may only be made as specifically directed in this label.

**AVOID DRIFT. Drift may cause damage to any vegetation contacted to which treatment is not intended. To prevent injury to adjacent desirable vegetation, appropriate buffer zones must be maintained.**

Drift control additives may be used. When a drift control additive is used, read and carefully observe the precautionary statements and all other information appearing on the additive label. The use of a drift control agent for Conifer and Herbaceous release applications may result in Conifer injury.

Ensure uniform application – To avoid streaked, uneven or overlapped application, use appropriate marking devices.

**PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR IS MORE SUSCEPTIBLE.** The maintenance of an organic coating (paint) which meets aerospace specification MIL-C-38413 may prevent corrosion. To prevent corrosion of exposed parts, thoroughly wash aircraft after each day of spraying to remove residues of this product accumulated during spraying or from spills.

### **Use Restrictions:**

- DO NOT apply during inversion conditions, when winds are gusty or under any other condition which will allow drift.
- Coarse sprays are less likely to drift; therefore, DO NOT use nozzles or nozzle configurations which dispense spray as fine spray droplets.
- DO NOT angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle pressure.

## **AERIAL APPLICATION IN CALIFORNIA ONLY**

### **Aquatic and Non-Crop\* Sites**

When applied as directed and under the conditions described in the *“WEEDS CONTROLLED”* section of this label, this product will control or partially control the labeled weeds growing in the following industrial, recreational and public areas.

\*For list of Non-crop sites this product may be used, refer to the section *“NON-CROP SITES”* of this label.

**Aquatic Sites:** Including all bodies of fresh and brackish water that may be flowing, non-flowing or transient.

This includes lakes, rivers, streams, ponds, seeps, irrigation and drainage ditches, canals, reservoirs and estuaries.

**If aquatic sites are present in the Non-crop area and are part of the intended treatment, read and observe the following directions:**

- There is no restriction on the use of treated water for irrigation, recreation or domestic purposes.
- Consult your local and State fish and game agency and water control authorities before applying this product to public water. Permits may be required to treat such water.
- **Note:** To make aquatic applications around and within one-half mile of active potable water intakes, the water intake must be turned off for a minimum period of 48 hours after the application. The water intake may be turned on prior to 48 hours if the Glyphosate level in the intake water is below 0.7 parts per million as determined by

laboratory analysis. These aquatic applications may be made **ONLY** in those cases where there are alternative water sources or holding ponds that would permit the turning off of an active potable water intake for a minimum period of 48 hours after application.

- This product does not control plants that are completely submerged or have a majority of their foliage under water.

**AVOID DRIFT. Drift may cause damage to any vegetation contacted to which treatment is not intended. To prevent injury to adjacent desirable vegetation, appropriate buffer zones must be maintained.**

### **Use Restrictions:**

- DO NOT apply this product within one-half mile upstream of an active potable water intake in flowing water (i.e., river, stream, etc.) or within one-half mile of an active potable water intake in a standing body of water such as a lake, pond or reservoir.
- DO NOT apply when winds are gusty or under any other condition that will allow drift.

## **Aerial Applications**

Aerial applications may be made with helicopter only.

Use the following guidelines when aerial applications are made near Perennial crops after budbreak and before total leaf drop and/or near emerged Annual crops:

1. Do not apply within 100 feet of all desirable vegetation or crop(s).
2. If wind up to 5 miles per hour is blowing toward desirable vegetation or crop(s), do not apply within 500 feet of the desirable vegetation or crop(s).
3. Winds blowing from 5 to 10 miles per hour toward desirable vegetation or crop(s) may require buffer zones in excess of the 500 foot minimum buffer.
4. Do not apply when winds are in excess of 10 miles per hour or when inversion conditions exist.

Coarse sprays are less likely to drift. Therefore, do not use nozzles or nozzle configurations that dispense spray as fine spray droplets. Do not angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle pressure above the manufacturer's recommendation.

**Ensure uniform application:** To avoid streaking, uneven or overlapped application, use appropriate marking devices.

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills. **Prolonged exposure of this product to uncoated steel surfaces may result in corrosion and possible failure of the part. Landing gear is most susceptible.** The maintenance of an organic coating (paint) which meets aerospace specification MIL-C-38413 may prevent corrosion.

## **GROUND BROADCAST EQUIPMENT**

**For control of weed or brush species listed in this label using conventional boom equipment:** For ground broadcast application, unless otherwise specified, apply the rates of this product and surfactant suitable for broadcast application in a spray volume of 3 to 30 gallons of water per acre. See the *“WEEDS CONTROLLED”* section of this label for labeled Annual, Herbaceous weeds and Woody plants and broadcast rates. Increase spray volume within the specified range as density of vegetation increases to ensure complete coverage. Carefully select correct nozzle to avoid spraying a fine mist. For best results with ground application equipment, use flat-fan nozzles. Check for even distribution of spray droplets.

**Forestry and Utility Rights-of-Way Sites:** This product is for broadcast application using suitable ground equipment in Forestry sites, Utility sites and Utility Rights-of-Way. Apply the labeled rates of this product and surfactant in a spray volume of 10 to 60 gallons per acre. Check for even distribution of spray droplets.

## **HANDHELD HIGH-VOLUME EQUIPMENT**

**Use coarse sprays only.** For control of weeds listed in this label using backpack or knapsack sprayers or high-volume spraying equipment utilizing handguns or other suitable nozzle arrangements – Prepare a 0.75 to 2% solution of this product in water, add a non-ionic surfactant and apply to foliage of vegetation to be controlled. For specific rates of application and instructions for control of various Annual and Perennial weeds, see the *“WEEDS CONTROLLED”* section of this label. Make applications on a spray-to-wet basis. Spray coverage must be uniform and complete. Do not spray to point of runoff.

**Low-volume directed sprays:** This product may be used as a 5 to 8% solution for low-volume directed sprays for spot treatment of trees and brush. This method is most effective in areas where there is a low density of undesirable trees or brush. If a straight stream nozzle is used, start the application at the top of the targeted vegetation and

spray from top to bottom in lateral zig-zag motion. Ensure that at least 50% of the leaves are contacted by the spray solution. For flat fan and cone nozzles and with hand-directed mist blowers, mist the application over the foliage of the targeted vegetation. Small, open-branched trees need only to be treated from one side. If the foliage is thick or there are multiple root sprouts, applications must be made from several sides to ensure adequate spray coverage.

Prepare the desired volume of spray solution by mixing the amount of this product in water as shown in the following table:

Desired Volume	Spray Solution							
	Amount of This Product							
	0.75%	1%	1.25%	1.5%	2%	5%	8%	10%
1 Gallon	1 fl. oz.	1.33 fl. ozs.	1.66 fl. ozs.	2 fl. ozs.	2.66 fl. ozs.	6.5 fl. ozs.	10.25 fl. ozs.	12.75 fl. ozs.
25 Gallons	1.5 pts.	1 qt.	1.25 qts.	1.5 qts.	2 qts.	5 qts.	2 gals.	2.5 gals.
100 Gallons	3 qts.	1 gal.	1.25 gals.	1.5 gals.	2 gals.	5 gals.	8 gals.	10 gals.

2 tablespoons = 1 fluid ounce

For use in knapsack sprayers, it is suggested that the amount of this product be mixed with water in a larger container. Fill sprayer with the mixed solution and add the correct amount of surfactant.

## SELECTIVE EQUIPMENT

This product may be applied through shielded sprayer or wiper application equipment. This equipment may be used to selectively control undesirable vegetation without harming desirable vegetation. Shielded sprayers direct the herbicide solution onto weeds while shielding desirable vegetation from the spray solution. Any labeled rate or tank-mixture of this product may be used employing this equipment. Wiper applicators physically wipe product directly onto undesirable vegetation. Avoid wiping desirable vegetation. Use a 33 to 100% solution of this product, diluted in water for wiper applications. Use a 33% solution for wick or gravity-feed systems. Higher concentrations may be used in pressurized systems that are capable of handling thicker solutions. A non-ionic surfactant at a rate of 10% by volume of total herbicide solution may be added.

## ANNUAL MAXIMUM RATE

Unless otherwise specified in the crop section of this label, the combined total of all treatments with products containing Glyphosate must not exceed 12 pints (6 lbs. a.e.) per acre per year.

For Non-crop uses, the combined total of all treatments with products containing Glyphosate must not exceed 16 pints (8 lbs. a.e.) per acre per year.

## WEEDS CONTROLLED

### ANNUAL WEEDS

Apply to actively growing Annual grasses and Broadleaf weeds.

Allow at least 3 days after application before disturbing treated vegetation. After this period the weeds may be mowed, tilled or burned. See "DIRECTIONS FOR USE," "USE INFORMATION" and "MIXING AND APPLICATION INSTRUCTIONS" for labeled uses and specific application instructions.

**Broadcast Application** – Use 1.5 pints of this product per acre plus a surfactant such as a non-ionic surfactant containing 80% or more active ingredient if weeds are less than 6 inches tall. If weeds are greater than 6 inches tall, use 2.5 pints of this product per acre plus a non-ionic surfactant containing 80% or more active ingredient.

**Handheld, High-Volume Application** – Use a 0.75% solution of this product in water plus a surfactant such as a non-ionic surfactant containing 80% or more active ingredient and apply to foliage of vegetation to be controlled.

When applied as directed under the conditions described in this label, this product plus a surfactant such as a non-ionic surfactant containing 80% or more active ingredient WILL CONTROL the following Annual weeds:

<b>Balsam apple*</b> <i>Momordica charantia</i>	<b>Chickweed, Mouseear</b> <i>Cerastium vulgatum</i>
<b>Barley</b> <i>Hordeum vulgare</i>	<b>Cocklebur</b> <i>Xanthium strumarium</i>
<b>Barnyardgrass</b> <i>Echinochloa crus-galli</i>	<b>Corn, Volunteer</b> <i>Zea mays</i>
<b>Bassia, Fivehook</b> <i>Bassia hyssopifolia</i>	<b>Crabgrass</b> <i>Digitaria</i> spp.
<b>Bluegrass, Annual</b> <i>Poa annua</i>	<b>Dwarf dandelion</b> <i>Krigia cespitosa</i>
<b>Bluegrass, Bulbous</b> <i>Poa bulbosa</i>	<b>Falseflax, Smallseed</b> <i>Camelina microcarpa</i>
<b>Brome</b> <i>Bromus</i> spp.	<b>Fiddleneck</b> <i>Amsinckia</i> spp.
<b>Buttercup</b> <i>Ranunculus</i> spp.	<b>Flaxleaf fleabane</b> <i>Conyza bonariensis</i>
<b>Cheat</b> <i>Bromus secalinus</i>	<b>Fleabane</b> <i>Erigeron</i> spp.

(Continued)

(Cont.)

<b>Foxtail</b> <i>Setaria</i> spp.	<b>Ragweed, Giant</b> <i>Ambrosia trifida</i>
<b>Foxtail, Carolina</b> <i>Alopecurus carolinianus</i>	<b>Rocket, London</b> <i>Sisymbrium irio</i>
<b>Groundsel, Common</b> <i>Senecio vulgaris</i>	<b>Rye</b> <i>Secale cereale</i>
<b>Horseweed/Marestail</b> <i>Conyza canadensis</i>	<b>Ryegrass, Italian**</b> <i>Lolium multiflorum</i>
<b>Kochia</b> <i>Kochia scoparia</i>	<b>Sandbur, Field</b> <i>Cenchrus</i> spp.
<b>Lambsquarters, Common</b> <i>Chenopodium album</i>	<b>Shattercane</b> <i>Sorghum bicolor</i>
<b>Lettuce, Prickly</b> <i>Lactuca serriola</i>	<b>Sherpherdspurse</b> <i>Capsella bursa-pastoris</i>
<b>Morningglory</b> <i>Ipomoea</i> spp.	<b>Signalgrass, Broadleaf</b> <i>Brachiaria platyphylla</i>
<b>Mustard, Blue</b> <i>Chorispora tenella</i>	<b>Smartweed, Pennsylvania</b> <i>Polygonum pensylvanicum</i>
<b>Mustard, Tansy</b> <i>Descurainia pinnata</i>	<b>Sowthistle, Annual</b> <i>Sochus oleraceus</i>
<b>Mustard, Tumble</b> <i>Sisymbrium altissimum</i>	<b>Spanishneedles**</b> <i>Bidens bipinnata</i>
<b>Mustard, Wild</b> <i>Sinapsis arvensis</i>	<b>Spurry, Umbrella</b> <i>Holosteum umbellatum</i>
<b>Oats, Wild</b> <i>Avena fatua</i>	<b>Stinkgrass</b> <i>Eragrostis cilianensis</i>
<b>Panicum</b> <i>Panicum</i> spp.	<b>Sunflower</b> <i>Helianthus annus</i>
<b>Pennycress, Field</b> <i>Thlaspi arvense</i>	<b>Thistle, Russian</b> <i>Salsola kali</i>
<b>Pigweed, Redroot</b> <i>Amaranthus retroflexus</i>	<b>Velvetleaf</b> <i>Abutilon theophrasti</i>
<b>Pigweed, Smooth</b> <i>Amaranthus hybridus</i>	<b>Wheat</b> <i>Triticum aestivum</i>
<b>Ragweed, Common</b> <i>Ambrosia artemisiifolia</i>	<b>Witchgrass</b> <i>Panicum capillare</i>

\* Apply with handheld equipment only.

\*\* Apply 3 pints of this product per acre.

Annual weeds will generally continue to germinate from seed throughout the growing season. Repeat treatments will be necessary to control later germinating seeds.

## PERENNIAL WEEDS

Apply this product to control most vigorously growing weeds.

Unless otherwise directed, apply when target plants are actively growing and most have reached early head or early bud stage of growth. Unless otherwise directed, allow at least 7 days after application before disturbing vegetation.

**NOTE:** If weeds have been mowed or tilled, do not treat until regrowth has reached the specified stages. Fall treatments must be applied before a killing frost.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seed.

**Specific Weed Control:** For Perennial weeds, apply the labeled rate plus a surfactant such as a non-ionic surfactant containing 80% or greater active ingredient. Use of this product without surfactant will result in reduced herbicide performance. Refer to the "MIXING AND APPLICATION INSTRUCTIONS" section of this label and the surfactant manufacturer label for more information.

When applied as directed, this product plus a surfactant such as a non-ionic surfactant containing 80% or greater active ingredient WILL CONTROL the following Perennial weeds:

<b>Alfalfa</b> <i>Medicago sativa</i>	<b>Bluegrass, Kentucky</b> <i>Poa pratensis</i>
<b>Alligatorweed*</b> <i>Alternanthera philoxeroides</i>	<b>Blueweed, Texas</b> <i>Helianthus ciliaris</i>
<b>Anise/Fennel</b> <i>Foeniculum vulgare</i>	<b>Brackenfern</b> <i>Pteridium</i> spp.
<b>Artichoke, Jerusalem</b> <i>Helianthus tuberosus</i>	<b>Bromegrass, Smooth</b> <i>Bromus internis</i>
<b>Bahiagrass</b> <i>Paspalum notatum</i>	<b>Canarygrass, Reed</b> <i>Phalaris arundinacea</i>
<b>Bermudagrass</b> <i>Cynodon dactylon</i>	<b>Cattail</b> <i>Typha</i> spp.
<b>Bindweed, Field</b> <i>Convolvulus arvensis</i>	

(Continued)

<b>(Cont.)</b>		
<b>Clover, Red</b> <i>Trifolium pratense</i>	<b>Mullein, Common</b> <i>Verbascum thapsus</i>	
<b>Clover, White</b> <i>Trifolium repens</i>	<b>Napiergrass</b> <i>Pennisetum purpureum</i>	
<b>Cogongrass</b> <i>Imperata cylindrica</i>	<b>Nightshade, Silverleaf</b> <i>Solanum elaeagnifolium</i>	
<b>Cordgrass</b> <i>Spartina</i> spp.	<b>Nutsedge</b> <b>Purple</b> <i>Cyperus rotundus</i>	
<b>Cutgrass, Giant*</b> <i>Zizaniopsis milicea</i>	<b>Yellow</b> <i>Cyperus esculentus</i>	
<b>Dallisgrass</b> <i>Paspalum dilatatum</i>	<b>Orchardgrass</b> <i>Dactylis glomerata</i>	
<b>Dandelion</b> <i>Taraxacum officinale</i>	<b>Pampasgrass</b> <i>Cortaderia jubata</i>	
<b>Dock, Curly</b> <i>Rumex crispus</i>	<b>Paragrass</b> <i>Brachiaria mutica</i>	
<b>Dogbane, Hemp</b> <i>Apocynum cannabinum</i>	<b>Phragmites**</b> <i>Phragmites</i> spp.	
<b>Fescue</b> <i>Festuca</i> spp.	<b>Quackgrass</b> <i>Agropyron repens</i>	
<b>Fescue, Tall</b> <i>Festuca arundinacea</i>	<b>Reed, Giant</b> <i>Arundo donax</i>	
<b>Guineagrass</b> <i>Panicum maximum</i>	<b>Ryegrass, Perennial</b> <i>Lolium perenne</i>	
<b>Hemlock, Poison</b> <i>Conium maculatum</i>	<b>Smartweed, Swamp</b> <i>Polygonum coccineum</i>	
<b>Horsenettle</b> <i>Solanum carolinense</i>	<b>Spatdock</b> <i>Nuphar luteum</i>	
<b>Horseradish</b> <i>Armoracia rusticana</i>	<b>Starthistle, Yellow</b> <i>Centaurea solstitialis</i>	
<b>Ice Plant</b> <i>Mesembryanthemum crystallinum</i>	<b>Sweet potato, Wild*</b> <i>Ipomoea pandurata</i>	
<b>Johnsongrass</b> <i>Sorghum halepense</i>	<b>Thistle, Artichoke</b> <i>Cynara cardunculus</i>	
<b>Kikuyugrass</b> <i>Pennisetum clandestinum</i>	<b>Thistle, Canada</b> <i>Cirsium arvense</i>	
<b>Knapweed, Russian</b> <i>Centaurea repens</i>	<b>Timothy</b> <i>Phleum pratense</i>	
<b>Lantana</b> <i>Lantana camara</i>	<b>Torpedograss*</b> <i>Panicum repens</i>	
<b>Lespedeza: Common, Sericea</b> <i>Lespedeza striata</i>	<b>Tules, Common</b> <i>Scirpus acutus</i>	
<i>Lespedeza cuneata</i>	<b>Vaseygrass</b> <i>Paspalum urvillei</i>	
<b>Loosestrife, Purple</b> <i>Lythrum salicaria</i>	<b>Velvetgrass</b> <i>Holcus</i> spp.	
<b>Lotus, American</b> <i>Nelumbo lutea</i>	<b>Waterhyacinth</b> <i>Eichornia crassipes</i>	
<b>Maidencane</b> <i>Panicum hematomon</i>	<b>Waterlettuce</b> <i>Pistia stratiotes</i>	
<b>Milkweed</b> <i>Asclepias</i> spp.	<b>Waterprimrose</b> <i>Ludwigia</i> spp.	
<b>Muhly, Wirestem</b> <i>Muhlenbergia frondosa</i>	<b>Wheatgrass, Western</b> <i>Argopyron smithii</i>	
* Partial control.		
** Partial control in Southeastern States.		

The specific directions for the listed Perennial weeds are as follows:

<b>Weed Species</b>	<b>Broadcast Spray Rate per Acre (Pts.)</b>	<b>Handheld Equipment Solution (%)</b>
Alligatorweed	6 (3 lbs. a.e.) SPECIFIC DIRECTIONS: Provides partial control. Apply when most of the target plants are in bloom. Repeat applications will be required to maintain such control.	1.25
Bermudagrass	7.5 (3.75 lbs. a.e.) SPECIFIC DIRECTIONS: Apply when target plants are actively growing and when seed heads appear.	1.5
Bindweed (Field), Silverleaf nightshade, Texas blueweed	West of the Mississippi River: 6 to 7.5 (3 to 3.75 lbs. a.e.) East of the Mississippi River: 4.5 to 6 (2.25 to 3 lbs. a.e.) SPECIFIC DIRECTIONS: Apply when target plants are actively growing and are at or beyond full bloom. For Silverleaf nightshade, best results can be obtained when application is made after berries are formed. Do not treat when weeds are under drought stress. New leaf development indicates active growth. For best results apply in late Summer or Fall.	1.5

**(Continued)**

<b>Weed Species</b>	<b>Broadcast Spray Rate per Acre (Pts.)</b>	<b>Handheld Equipment Solution (%)</b>
Brackenfern	4.5 to 6 (2.25 to 3 lbs. a.e.) SPECIFIC DIRECTIONS: Apply to fully expanded fronds which are at least 18 inches long.	0.75 to 1.0
Cattail	4.5 to 6 (2.25 to 3 lbs. a.e.) SPECIFIC DIRECTIONS: Apply when target plants are actively growing and are at or beyond the early to full bloom stage of growth. Best results are achieved when application is made during the Summer or Fall months.	0.75
Cogongrass	4.5 to 7.5 (2.25 to 3.75 lbs. a.e.) SPECIFIC DIRECTIONS: Apply when Cogongrass is at least 18 inches tall and actively growing in late Summer or Fall. Allow 7 or more days after application before tillage or mowing. Due to uneven stages of growth and the dense nature of vegetation preventing good spray coverage, repeat treatments may be necessary to maintain control.	—
Cordgrass	4.5 to 7.5 (2.25 to 3.75 lbs. a.e.) SPECIFIC DIRECTIONS: Schedule applications in order to allow 6 hours before treated plants are covered by tidewater. The presence of debris and silt on the Cordgrass plants will reduce performance. It may be necessary to wash targeted plants prior to application to improve uptake of this product into the plant.	1.0 to 2.0
Cutgrass (Giant)	6 (3 lbs. a.e.) SPECIFIC DIRECTIONS: Provides partial control. Repeat applications will be required to maintain such control, especially where vegetation is partially submerged in water. Allow for substantial regrowth to the 7 leaf to 10 leaf stage prior to retreatment.	1.0
Dogbane (Hemp), Knapweed, Horseradish	6 (3 lbs. a.e.) SPECIFIC DIRECTIONS: Apply when target plants are actively growing and most have reached the late bud to flower stage of growth. For best results, apply in late Summer or Fall.	1.5
Fescue (Tall)	4.5 (2.25 lbs. a.e.) SPECIFIC DIRECTIONS: Apply when target plants are actively growing and most have reached the boot-to-head stage of growth. When applied prior to the boot stage, less desirable control may be obtained.	1.0
Guineagrass	4.5 (2.25 lbs. a.e.) SPECIFIC DIRECTIONS: Apply when target plants are actively growing and when most have reached at least the 7 leaf stage of growth.	0.75
Johnsongrass, Bluegrass (Kentucky), Bromegrass (Smooth), Canarygrass (Reed), Orchardgrass, Ryegrass (Perennial), Timothy, Wheatgrass (Western)	3 to 4.5 (1.5 to 2.25 lbs. a.e.) SPECIFIC DIRECTIONS: Apply when target plants are actively growing and most have reached the late boot-to-head stage of growth. When applied prior to the boot stage, less desirable control may be obtained. In the Fall, apply before plants have turned brown.	0.75
Lantana	— SPECIFIC DIRECTIONS: Apply to actively growing Lantana at or beyond the bloom stage of growth. Use the higher application rate for plants that have reached the woody stage of growth.	0.75 to 1.0

**(Continued)**



<b>(Cont.)</b>		
<b>Weed Species</b>	<b>Broadcast Spray Rate per Acre (Pts.)</b>	<b>Handheld Equipment Solution (%)</b>
Loosestrife (Purple)	4 (2 lbs. a.e.)	1.0 to 1.5
	SPECIFIC DIRECTIONS: Treat when plants are actively growing at or beyond the bloom stage of growth. Best results are achieved when application is made during Summer or Fall months. Fall treatments must be applied before a killing frost.	
Lotus (American)	4 (2 lbs. a.e.)	0.75
	SPECIFIC DIRECTIONS: Treat when plants are actively growing at or beyond the bloom stage of growth. Best results are achieved when application is made during Summer or Fall months. Fall treatments must be applied before a killing frost. Repeat treatment may be necessary to control regrowth from underground parts and seeds.	
Maidencane, Paragrass	6 (3 lbs. a.e.)	0.75
	SPECIFIC DIRECTIONS: Repeat treatments will be required, especially to vegetation partially submerged in water. Under these conditions, allow for regrowth to the 7 leaf to 10 leaf stage prior to retreatment.	
Milkweed (Common)	4.5 (2.25 lbs. a.e.)	1.5
	SPECIFIC DIRECTIONS: Apply when target plants are actively growing and most have reached the late bud-to-flower stage of growth.	
Nutsedge (Purple, Yellow)	4.5 (2.25 lbs. a.e.)	0.75
	SPECIFIC DIRECTIONS: Controls existing Nutsedge plants and immature nutlets attached to treated plants. Apply when target plants are in flower or when new nutlets can be found at rhizome tips. Nutlets which have not germinated will not be controlled and may germinate following treatment. Repeat treatments will be required for long-term control.	
Pampasgrass	—	1.5
	SPECIFIC DIRECTIONS: Apply when plants are actively growing.	
Phragmites	FL and counties of other States bordering Gulf of Mexico: 7.5 (3.75 lbs. a.e.) All other areas: 4 to 6 (2 to 3 lbs. a.e.)	FL and counties of other States bordering Gulf of Mexico: 1.5 All other areas: 0.75
	SPECIFIC DIRECTIONS: Provides partial control. For best results, treat during late Summer or Fall months when plants are actively growing and in full bloom. Due to the dense nature of the vegetation which may prevent good spray coverage and uneven stages of growth, repeat treatments may be necessary to maintain control. Visual control symptoms will be slow to develop.	
Quackgrass, Kikuyugrass, Muhly (Wirestem)	3 to 4.5 (1.5 to 2.25 lbs. a.e.)	0.75
	SPECIFIC DIRECTIONS: Apply when most quackgrass or Wirestem muhly is at least 8 inches in height (3 leaf to 4 leaf stage of growth) and actively growing. Allow 3 or more days after application before tillage.	
Reed (Giant), Ice plant	—	1.5
	SPECIFIC DIRECTIONS: Apply when plants are actively growing. For Giant reed, best results are obtained when applications are made in late Summer to Fall.	
Spatterdock	6 (3 lbs. a.e.)	0.75
	SPECIFIC DIRECTIONS: Apply when most plants are in full bloom. For best results, apply during the Summer or Fall months.	
Sweet potato (Wild)	—	1.5
	SPECIFIC DIRECTIONS: Apply to actively growing weeds that are at or beyond the bloom stage of growth. Repeat applications will be required. Allow the plant to reach the specified stage of growth before retreatment.	

**(Continued)**

<b>(Cont.)</b>		
<b>Weed Species</b>	<b>Broadcast Spray Rate per Acre (Pts.)</b>	<b>Handheld Equipment Solution (%)</b>
Thistle (Canada, Artichoke)	3 to 4.5 (1.5 to 2.25 lbs. a.e.)	1.5
	SPECIFIC DIRECTIONS: To control Artichoke thistle, apply a 2% solution as a spray-to-wet application. Apply when target plants are actively growing and are at or beyond the bud stage of growth.	
Torpedograss	6 to 7.5 (3 to 3.75 lbs. a.e.)	0.75 to 1.5
	SPECIFIC DIRECTIONS: Provides partial control. Use the lower rates under terrestrial conditions and the higher rates under partially submerged or a floating mat condition. Repeat treatments will be required to maintain such control.	
Tules (Common)	—	1.5
	SPECIFIC DIRECTIONS: Apply to actively growing plants at or beyond the seedhead stage of growth. After application, visual symptoms will be slow to appear and may not occur for 3 or more weeks.	
Waterhyacinth	5 to 6 (2.5 to 3 lbs. a.e.)	0.75 to 1.0
	SPECIFIC DIRECTIONS: Apply when plants are actively growing and at or beyond the early bloom stage of growth. After application, visual symptoms may require 3 or more weeks to appear with complete necrosis and decomposition usually occurring within 60 to 90 days. Use the higher rates when more rapid visual effects are desired.	
Waterlettuce	—	0.75 to 1.0
	SPECIFIC DIRECTIONS: For control, apply to actively growing plants. Use higher rates where infestations are heavy. Best results are obtained from mid-Summer through Winter applications. Spring applications may require retreatment.	
Waterprimrose	—	0.75
	SPECIFIC DIRECTIONS: Apply to plants that are actively growing at or beyond the bloom stage of growth, but before Fall color changes occur. Thorough coverage is necessary for best control.	
Other Perennial weeds listed on this label [Alfalfa; Anise/Fennel; Artichoke, Jerusalem; Bahiagrass; Clover, Red; Clover, White; Dallisgrass; Dandelion; Dock, Curly; Fescue; Hemlock, Poison; Horsenettle; Lespedeza, Common; Lespedeza, Sericea; Mullein, Common; Napiergrass; Smartweed, Swamp; Starthistle, Yellow; Vaseygrass; Velvetgrass]	4.5 to 7.5 (2.25 to 3.75 lbs. a.e.)	0.75 to 1.5
	SPECIFIC DIRECTIONS: Apply when target plants are actively growing and most have reached early-head or early-bud stage of growth.	

## WOODY BRUSH AND TREES

**Note:** If brush has been mowed or tilled or trees have been cut, do not treat until regrowth has reached the specified stage of growth.

### Application Rates and Timing

When applied as a 5 to 8% solution as a directed application as described in the “**HANDHELD HIGH-VOLUME EQUIPMENT**” section, this product will control or partially control all Woody brush and tree species listed in this section of the label. Use the higher rate of application for dense stands and larger Woody brush and trees.

### Specific Brush or Tree Control

For Woody brush and trees, apply the specified rate plus a surfactant such as a non-ionic surfactant containing 80% or greater active ingredient. Use of this product without surfactant will result in reduced herbicide performance. Refer to the “**MIXING AND APPLICATION INSTRUCTIONS**” section of this label and the manufacturer label for more information. Make applications when plants are actively growing and, unless otherwise directed, after full-leaf expansion. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in late Summer or Fall after fruit formation.

In arid areas, best results are obtained when application is made in the Spring or early Summer when brush species are at high moisture content and are flowering. Ensure thorough coverage when using handheld equipment. Symptoms may not appear prior to frost or senescence with Fall treatments.

Allow 7 or more days after application before tillage, mowing or removal. Repeat treatments may be necessary to control plants regenerating from underground parts or seed. Some Autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Reduced performance may result if Fall treatments are made following a frost.

See the “**DIRECTIONS FOR USE**” and “**MIXING AND APPLICATION INSTRUCTIONS**” sections in this label for labeled use and specific application instructions.

When applied as directed, this product plus a surfactant such as a non-ionic surfactant containing 80% or greater active ingredient WILL CONTROL the following Woody brush plants and trees:

<b>Alder</b> <i>Alnus</i> spp.	<b>Monkey flower*</b> <i>Mimulus guttatus</i>
<b>Ash*</b> <i>Fraxinus</i> spp.	<b>Oak:</b>
<b>Aspen, Quaking</b> <i>Populus tremuloides</i>	<b>Black*</b> <i>Quercus velutina</i>
<b>Bearclover, Bearmat</b> <i>Chamaebatia foliolosa</i>	<b>Northern pin</b> <i>Quercus palustris</i>
<b>Birch</b> <i>Betula</i> spp.	<b>Post</b> <i>Quercus stellata</i>
<b>Blackberry</b> <i>Rubus</i> spp.	<b>Red</b> <i>Quercus rubra</i>
<b>Broom:</b>	<b>Southern red</b> <i>Quercus falcata</i>
<b>French</b> <i>Cytisus monspessulanus</i>	<b>White*</b> <i>Quercus alba</i>
<b>Scotch</b> <i>Cytisus scoparius</i>	<b>Peppertree, Brazilian (Florida holly)</b> <i>Schinus terebinthifolius</i>
<b>Buckwheat, California*</b> <i>Eriogonum fasciculatum</i>	<b>Persimmon*</b> <i>Diospyros</i> spp.
<b>Cascara*</b> <i>Rhamnus purshiana</i>	<b>Poison ivy</b> <i>Rhus radicans</i>
<b>Catsclaw*</b> <i>Acacia greggi</i>	<b>Poison oak</b> <i>Rhus toxicodendron</i>
<b>Ceanothus</b> <i>Ceanothus</i> spp.	<b>Poplar, Yellow*</b> <i>Liriodendron tulipifera</i>
<b>Chamise</b> <i>Adenostoma fasciculatum</i>	<b>Prunus</b> <i>Prunus</i> spp.
<b>Cherry:</b>	<b>Raspberry</b> <i>Rubus</i> spp.
<b>Bitter</b> <i>Prunus emarginata</i>	<b>Redbud, Eastern</b> <i>Cercis canadensis</i>
<b>Black</b> <i>Prunus serotina</i>	<b>Rose, Multiflora</b> <i>Rosa multiflora</i>
<b>Pin</b> <i>Prunus pensylvanica</i>	<b>Russian olive</b> <i>Elaeagnus angustifolia</i>
<b>Coyote brush</b> <i>Baccharis consanguinea</i>	<b>Sage:</b>
<b>Creeper, Virginia*</b> <i>Parthenocissus quinquefolia</i>	<b>Black</b> <i>Salvia</i> spp.
<b>Dewberry</b> <i>Rubus trivialis</i>	<b>White</b> <i>Salvia</i> spp.
<b>Dogwood</b> <i>Cornus</i> spp.	<b>Sagebrush, California</b> <i>Artemisia californica</i>
<b>Elderberry</b> <i>Sambucus</i> spp.	<b>Salmonberry</b> <i>Rubus spectabilis</i>
<b>Elm*</b> <i>Ulmus</i> spp.	<b>Saltcedar*</b> <i>Tamarix</i> spp.
<b>Eucalyptus, Bluegum</b> <i>Eucalyptus globulus</i>	<b>Saltbush, Sea myrtle</b> <i>Baccharis halimifolia</i>
<b>Hasardia*</b> <i>Haplopappus squamosus</i>	<b>Sassafras</b> <i>Sassafras aibidum</i>
<b>Hawthorn</b> <i>Crataegus</i> spp.	<b>Sourwood*</b> <i>Oxydendrum arboreum</i>
<b>Hazel</b> <i>Corylus</i> spp.	<b>Sumac:</b>
<b>Hickory</b> <i>Carya</i> spp.	<b>Poison*</b> <i>Rhus vernix</i>
<b>Honeysuckle</b> <i>Lonicera</i> spp.	<b>Smooth*</b> <i>Rhus glabra</i>
<b>Hornbeam, American</b> <i>Carpinus caroliniana</i>	<b>Winged*</b> <i>Rhus copallinia</i>
<b>Kudzu</b> <i>Pueraria lobata</i>	<b>Sweetgum</b> <i>Liquidambar styraciflua</i>
<b>Locust, Black*</b> <i>Robinia pseudoacacia</i>	<b>Swordfern*</b> <i>Polystichum munitum</i>
<b>Manzanita</b> <i>Arctostaphylos</i> spp.	<b>Tallowtree, Chinese</b> <i>Sapium sebiferum</i>
<b>Maple:</b>	<b>Thimbleberry</b> <i>Rubus parviflorus</i>
<b>Red*</b> <i>Acer rubrum</i>	<b>Tobacco, Tree*</b> <i>Nicotiana glauca</i>
<b>Sugar</b> <i>Acer saccharum</i>	<b>Trumpet creeper</b> <i>Campsis radicans</i>
<b>Vine*</b> <i>Acer circinatum</i>	<b>Waxmyrtle, Southern*</b> <i>Myrica cerifera</i>
* Partial control.	<b>Willow</b> <i>Salix</i> spp.



See the following table for specific application rates and timing for CONTROL or PARTIAL CONTROL of the listed species.

Brush or Tree	Broadcast Spray Rate per Acre (Pts.)	Handheld Equipment Solution (%)
Alder, Blackberry, Dewberry, Honeysuckle, Oak (Post), Raspberry	4.5 to 6 (2.25 to 3 lbs. a.e.)	0.75 to 1.25
Ash, Bearclover (Bearmat), Cascara, Ceanothus, Creeper (Virginia), Elm, Hornbeam (American), Locust (Black), Manzanita, Maple (Vine), Oak (Black, White), Persimmon, Poplar (Yellow), Redbud (Eastern), Russian olive, Sassafras, Sourwood, Sumac (Poison, Smooth, Winged), Swordfern	3 to 7.5 (1.5 to 3.75 lbs. a.e.) SPECIFIC DIRECTIONS: For partial control, apply at the specified rates.	0.75 to 1.5
Aspen (Quaking), Hawthorn, Trumpet creeper	3 to 4.25 (1.5 to 2.125 lbs. a.e.)	0.75 to 1.25
Birch, Elderberry, Hazel, Salmonberry, Thimbleberry	3 (1.5 lbs. a.e.)	0.75
Broom (French, Scotch)	—	1.25 to 1.5
Buckwheat (California), Hasardia, Monkey flower, Tobacco (Tree)	— SPECIFIC DIRECTIONS: Provides partial control. Apply as a foliar spray. Thorough coverage of foliage is necessary for best results.	0.75 to 1.5
Catsclaw	— SPECIFIC DIRECTIONS: Provides partial control. Apply when at least 50% of the new leaves are fully developed.	1.25 to 1.5
Cherry (Bitter, Black, Pin), Oak (Southern red), Sweet gum, Prunus	3 to 7.5 (1.5 to 3.75 lbs. a.e.)	1.0 to 1.5
Coyotebrush	— SPECIFIC DIRECTIONS: Apply when at least 50% of the new leaves are fully developed.	1.25 to 1.5
Dogwood, Hickory, Saltcedar	6 to 7.5 (3 to 3.75 lbs. a.e.) SPECIFIC DIRECTIONS: Provides partial control.	1.0 to 2.0
Eucalyptus (Bluegum)	— SPECIFIC DIRECTIONS: Apply when resprouts are 6 to 12 feet tall. Apply when plants are actively growing. Avoid application to drought-stressed plants.	1.5
Kudzu	6 (3 lbs. a.e.) SPECIFIC DIRECTIONS: Repeat applications will be required to maintain control.	1.5
Maple (Red)	2 to 7.5 (1 to 3.75 lbs. a.e.) SPECIFIC DIRECTIONS: For control, apply as a solution with handheld equipment when leaves are fully developed. For partial control, apply as a broadcast spray.	0.75 to 1.25

(Continued)

Brush or Tree	Broadcast Spray Rate per Acre (Pts.)	Handheld Equipment Solution (%)
Maple (Sugar), Oak (Northern pin, Red)	— SPECIFIC DIRECTIONS: Apply when at least 50% of the new leaves are fully developed.	0.75 to 1.25
Peppertree, Brazilian (Holly, Florida), Waxmyrtle (Southern)	— SPECIFIC DIRECTIONS: Provides partial control.	1.5
Poison ivy, Poison oak	6 to 7.5 (3 to 3.75 lbs. a.e.) SPECIFIC DIRECTIONS: Repeat applications may be required to maintain control. Fall treatments must be applied before leaves lose green color.	1.5
Rose (Multiflora)	3 (1.5 lbs. a.e.) SPECIFIC DIRECTIONS: Apply prior to leaf deterioration by leaf-feeding insects.	0.75
Sage (Black), Sagebrush (California), Chamise, Tallowtree (Chinese)	— SPECIFIC DIRECTIONS: Apply as a foliar spray. Thorough coverage of foliage is necessary for best results.	0.75
Saltbush (Sea myrtle)	—	1.0
Willow	4.5 (2.25 lbs. a.e.)	0.75

## AQUATIC AND OTHER NON-CROP\* SITES

Apply this product as directed and under the conditions described to control or partially control weeds and Woody plants listed in the “WEEDS CONTROLLED” section in industrial, recreational and public areas, or other aquatic or terrestrial sites on this label.

\*For list of Non-crop sites this product may be used, refer to the section “NON-CROP SITES” of this label.

## AQUATIC SITES

This product may be applied to emerged weeds in all bodies of fresh and brackish water which may be flowing, non-flowing or transient. This includes lakes, rivers, streams, ponds, estuaries, rice levies, seeps, irrigation and drainage ditches, canals, reservoirs, wastewater treatment facilities, wildlife habitat restoration and management areas. If aquatic sites are present in the Non-crop area and are part of the intended treatment, read and observe the following directions:

**This product does not control plants which are completely submerged or have a majority of their foliage under water.**

There is no restriction on the use of treated water for irrigation, recreation or domestic purposes.

Consult local/State fish and game agency and water control authorities before applying this product to public water. Permits may be required to treat such water.

For treatments after drawdown of water or in dry ditches, allow 7 or more days after treatment before reintroduction of water to achieve maximum weed control. Apply this product within 1 day after drawdown to ensure application to actively growing weeds.

When emerged infestations require treatment of the total surface area of impounded water, treating the area in strips may avoid oxygen depletion due to decaying vegetation. Oxygen depletion may result in fish kill.

## Use Restrictions:

DO NOT apply this product directly to water within one-half mile upstream of an active potable water intake in flowing water (i.e., river, stream, etc.) or within one-half mile of an active potable water intake in a standing body of water such as a lake, pond or reservoir. To make applications around and within one-half mile of active potable water intakes, the water intake must be turned off for a minimum period of 48 hours after the application. The water intake may be turned on prior to 48 hours if the Glyphosate level in the intake water is below 0.7 parts per million as determined by laboratory analysis. These aquatic applications may be made ONLY in those cases where there are alternative water sources or holding ponds which would permit the turning off of an active potable water intake for a minimum period of 48 hours after the applications.

**Note:** These restrictions DO NOT apply to intermittent inadvertent overspray of water in terrestrial use sites.

Floating mats of vegetation may require retreatment. Avoid washoff of sprayed foliage by spray boat or recreational boat backwash or by rainfall within 6 hours of application. DO NOT retreat within 24 hours following the initial treatment.

Applications made to moving bodies of water must be made while traveling upstream to prevent concentration of this herbicide in the water. When making any bankside applications, DO NOT overlap more than 1 foot into open water. DO NOT spray in bodies of water where weeds do not exist. The maximum application rate of 7.5 pints (3.75 lbs. a.e.) per acre must not be exceeded in any single broadcast application that is being made over water.

## FOR CONTROL OF CORDGRASS IN ESTUARIES (WA State Only)

Only certified applicators or persons under the direct supervision of a certified applicator may use or apply this product to control Cordgrass in Washington State under the conditions described. All applicators must comply with the NPDES permit issued to the WSDA.

Apply this product as directed below to control Cordgrass (*Spartina* spp.) in Estuaries.

The presence of debris and silt on the surface of Cordgrass plants will reduce product performance. It may be necessary to wash targeted plants prior to application to improve herbicide uptake. Where Cordgrass has been cut or mowed prior to application, allow significant regrowth before application to ensure adequate interception and uptake of the herbicide solution.

Prior to application, survey the area to be treated to determine if shellfish beds exist within the intended treatment area. Wait either until shellfish have been harvested before application is made or do not harvest shellfish for 14 days following treatment.

When making broadcast applications by ground or by air or when using handheld, backpack or high-volume equipment, use crop oil concentrate, modified vegetable oil concentrate or non-ionic surfactant at the labeled rates. If needed, other spray adjuvants including anti-foaming agents, drift control agents and water conditioning agents may be used. Only spray adjuvants that are registered for aquatic use by WSDA and are authorized under the NPDES permit may be used. Refer to the "USE INFORMATION", "MIXING AND APPLICATION INSTRUCTIONS" and "APPLICATION EQUIPMENT AND TECHNIQUES" sections of this label for use of this product.

## Application

Under ideal application conditions, that is, when silt and debris are not present on plant surfaces, good spray coverage is achievable, target plants are actively growing and specified rates and application volumes are used, allow at least 4 hours drying time before plants are covered by tidewater. Where one or more of these conditions are not met, schedule applications to allow at least 5 hours of drying time before plants are covered by tidewater.

**Broadcast Application (Ground):** Apply 4 to 16 pints of this product (2 to 8 lbs. a.e.) in 5 to 100 gallons of spray solution per acre. For best results, complete coverage of Cordgrass clumps is required.

**Handheld, Backpack or High-Volume Equipment:** Apply a 2 to 8% solution of this product. Ensure that complete coverage of Cordgrass clumps is achieved. Do not spray to the point of runoff.

**Broadcast Application (Air):** Apply 4 to 16 pints of this product (2 to 8 lbs. a.e.) in 5 to 100 gallons of spray solution per acre. Maintain at least a 50 foot buffer between commercial shellfish beds and treated areas. The potential for spray drift is dependent upon weather and equipment related factors. The applicator must be familiar with local wind patterns and monitor and record temperature and wind speed prior to and periodically during application. Schedule application in order to allow at least 5 hours before treated plants are covered by tidewater.

**Wiper Applications:** For wick or wiper applications, mix 8 pints of this product (4 lbs. a.e.) with 2 gallons of clean water to make a 33% solution. A non-ionic surfactant at a rate of 10% by volume of the total herbicide solution may be added. In heavy stands, a double application in opposite directions may improve results.

## Use Restrictions

- Broadcast applications shall not be made when the wind speed at the application site exceeds 10 miles per hour.
- Do not apply more than the maximum application rate of 16 pints (8 lbs. a.e.) per acre per year for broadcast (ground or air) application.
- The maximum application rate of 7.5 pints of this product (3.75 lbs. a.e.) per acre must not be exceeded in any single broadcast application that is being made over water.

## NON-CROP SITES

This product may be used to control the listed weeds in and around Non-crop areas:

Airports	Parking areas
Apartment complexes	Parks
Aquatic sites	Pastures
Christmas tree farms	Petroleum tank farms
Commercial sites	Pipeline, Power, Telephone, and Utility Rights-of-Way
Conservation Reserve Program (CRP) areas	Plant nurseries
Ditch banks	Public areas
Driveways	Pumping installations
Dry canals	Railroads
Dry ditches	Rangelands
Fencerows	Recreation areas
Greenhouses	Roadsides
Golf courses	Schools
Habitat restoration and Management areas	Shadehouses
Highways and Roadsides	Sod or turf seed farms
Industrial plant sites/Industrial areas	Sports complexes
Lumberyards	Storage areas
Manufacturing sites	Substations
Municipal sites	Turfgrass areas
Natural areas	Utility sites
Office complexes	Warehouse areas
Ornamentals	Wildlife habitat management areas
	Grazed areas on these sites

## FORESTRY SITES AND UTILITY RIGHTS-OF-WAY

In Forest and Utility sites, this product can be used for the control or partial control of Woody brush, trees and Annual and Perennial herbaceous weeds. This product can also be used in preparing or establishing wildlife openings within these sites, in pine straw plantations for maintaining logging roads and for side trimming along Utility Rights-of-Way.

In Forestry sites, this product can be used in site preparation prior to planting any tree species, including Christmas trees and silvicultural nursery sites.

In Utility sites, this product can be used along electrical power, pipeline and telephone Rights-of-Way and in other Utility sites associated with these Rights-of-Way, such as substations.

## Application Rates

Method of Application	Application Rate	Spray Volume (Gal./Ac.)
<b>Broadcast</b>		
Aerial	3 to 15 pts. per acre	5 to 30
Ground	3 to 15 pts. per acre	10 to 60
<b>Spray-to-Wet</b>		
Handgun, Backpack, Mistblower	0.75 to 2% by volume	Spray-to-Wet
<b>Low-Volume Directed Spray*</b>		
Handgun, Backpack, Mistblower	5 to 10% by volume	Partial coverage

\* For low-volume directed spray, apply uniformly with at least 50% of the foliage contacted. For best results, coverage of the top one-half of the plant is important.

**Use Restriction:** Where repeat applications are necessary, DO NOT exceed 16 pts. of this product (8 lbs. a.e.) per acre per year.

In Forestry site preparation and Utility Rights-of-Way applications, this product requires use with a surfactant such as a non-ionic surfactant containing greater than 80% active ingredient. Use of this product without surfactant will result in reduced herbicide performance. Refer to the "MIXING AND APPLICATION INSTRUCTIONS" section of this label and the surfactant manufacturer label for more information.

Use higher rates of this product within the specified rate ranges for control or partial control of Woody brush, trees and hard-to-control Perennial herbaceous weeds. For best results, apply to actively growing Woody brush and trees after full leaf expansion and before Fall color and leaf drop. Use increased rates within the specified rate range to control Perennial herbaceous weeds from emergence up to the appearance of seedheads, flowers or berries appear. Use lower rates within the specified rate range to control Annual herbaceous weeds and actively growing Perennial herbaceous weeds after seedheads, flowers or berries appear. Apply to foliage of active growing Annual herbaceous weeds anytime after emergence.

## Tank-Mixtures

This product may be used in tank-mix combination with other herbicide products including Triclopyr and Imazapyr to broaden the spectrum of vegetation controlled. Any labeled rate of this product may be used in a tank-mix.

**Note:** For Forestry site preparation, make sure the tank-mix product is approved for use prior to planting the desired species. Observe planting interval restrictions. For side trimming treatments in Utility Rights-of-Way, do not use in tank-mixtures with Imazapyr herbicide. For side trimming treatments, this product may be used alone or as a tank-mix with Triclopyr.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions 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.

## FORESTRY CONIFER AND HARDWOOD RELEASE Use Restriction

Where repeat applications are necessary, DO NOT exceed 16 pints of this product (8 lbs. a.e.) per acre per year.

### Directed Sprays and Selective Equipment

This product may be applied as a directed spray or by using selective equipment in Forestry Conifer and hardwood sites, including Christmas tree plantations and silvicultural nurseries. This product requires use with a surfactant. Use only surfactants that are approved for Conifer release and specified on the surfactant label as safe for use in Conifer release (Pine release). Use of this product without surfactant will result in reduced herbicide performance. Refer to the "MIXING AND APPLICATION INSTRUCTIONS" section of this label and surfactant manufacturer label for more information.

**Tank-Mixing:** In hardwood plantations, tank-mixtures with Sulfometuron-methyl may be used. In Pine plantations, tank-mixtures with Triclopyr or Imazapyr may be used. Comply with all site restrictions, Forestry species limitations and precautions on the tank-mix product labels.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions 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.

Avoid contact of spray drift, mist or drips with foliage, green bark or non-woody surface roots of desirable plant species. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for specific directions and precautions.

**Spray-to-Wet Applications:** Use a 2% spray solution to control undesirable Woody brush and trees. To control Herbaceous weeds, use a 1 to 2% spray solution.

**Low-Volume Directed Spray Applications:** Use a 5 to 10% spray solution. Apply uniformly with at least 50% of the foliage contacted. Coverage of the top one-half of the unwanted vegetation is important.

**Broadcast Applications:** For equipment calibrated for broadcast applications, use 3 to 15 pints of this product (1.5 to 7.5 lbs. a.e.) per acre. Apply in 10 to 60 gallons of clean water per acre. Shielded application equipment may be used to avoid contact of the spray solution with desirable plants. Adjust the shields to prevent spray contact with the foliage of green bark or desirable vegetation.

**Wiper Application Equipment:** See the "SELECTIVE EQUIPMENT" section of this label for equipment and application rates.

### Broadcast Application

**Note:** Except where specified below, make broadcast applications of this product only where Conifers have been established for more than one year.

**Broadcast application must be made after formation of final Conifer resting buds in the Fall or prior to initial bud swelling in the Spring.**

Injury may occur to Conifers treated for release, especially where spray patterns overlap or the higher rates are applied. Damage can be accentuated if applications are made when Conifers are actively growing or are under stress from drought, flood water, improper planting, insects, animal damage or diseases.

This product requires use with a surfactant. Use a surfactant that is labeled for use in over-the-top release applications. Use of this product without a surfactant will result in reduced herbicide performance. Refer

to the "MIXING AND APPLICATION INSTRUCTIONS" section of this label and the surfactant manufacturer label for more information.

## For release of the following Conifer species outside the Southeastern United States:

<b>Douglas fir</b> <i>Pseudotsuga menziesii</i> <b>Fir</b> <i>Abies</i> spp. <b>Hemlock**</b> <i>Tsuga</i> spp.	<b>Pines*</b> <i>Pinus</i> spp. <b>Redwood, California**</b> <i>Sequoia</i> spp.
*Includes all species except Loblolly pine, Longleaf pine, Shortleaf pine or Slash pine. **Use of a surfactant is not suitable for release of Hemlock species or California redwood. In mixed Conifer stands, injury to these species may result if a surfactant is used.	

**Application Rate for Conifer Release:** Apply 1.5 to 3 pints of this product (0.75 to 1.5 lbs. a.e.) per acre as a broadcast spray. In Maine and New Hampshire, up to 4.5 pints of this product per acre may be used for the control and suppression of difficult-to-control hardwood species.

To release Douglas fir, Pine and Spruce species at the end of the first growing season (except in California), apply 1.5 to 2.25 pints of this product (0.75 to 1.125 lbs. a.e.) per acre. Make sure that all Conifers are well-hardened off.

**Note:** For release of Douglas fir with this product or in tank-mixtures, a non-ionic surfactant suitable for over-the-top foliar spray may be used. To avoid possible Conifer injury, non-ionic surfactant may be used at 2 fluid ounces per acre at elevations above 1,500 feet or 1 fluid ounce per acre in the coastal range or at elevations below 1,500 feet. Use of surfactant rates exceeding those listed above may result in unacceptable Conifer injury. Make sure that the non-ionic surfactant has been adequately tested for safety to Douglas fir before use.

**Tank-Mixtures with Sulfometuron-methyl:** To release Jack pine, White pine and White spruce, apply 1.5 to 3 pints of this product (0.75 to 1.5 lbs. a.e.) with Sulfometuron-methyl labeled rate per acre. Make applications to actively growing weeds as a broadcast spray over-the-top of established Conifers after formation of Conifer resting buds in the late Summer or Fall.

**Tank-Mixtures with Imazapyr:** This product may be tank-mixed with Imazapyr for release of Douglas fir. Tank-mix 1.5 to 2.25 pints of this product (0.75 to 1.125 lbs. a.e.) with Imazapyr labeled rate per acre. For release of Balsam fir and Red spruce, apply a mixture of 3 pints of this product with Imazapyr labeled rate per acre.

In Maine and New Hampshire for the release of Red pine, Balsam fir, Red spruce, White spruce, Norway spruce and Black spruce with dense tough-to-control brush and where Maples make up a large component of the undesirable trees, up to 4.5 pints of this product (2.25 lbs. a.e.) per acre may be tank-mixed with Imazapyr labeled rate and applied as a broadcast spray.

**Tank-Mixtures with Imazapyr and Sulfometuron-methyl Herbicides:** In Maine and New Hampshire for release of Red pine, Balsam fir, Red spruce, White spruce, Norway spruce and Black spruce with heavy Grass and Herbaceous weed densities, tough-to-control brush and where Maples make up a large component of the undesirable trees, up to 4.5 pints of this product (2.25 lbs. a.e.) per acre may be tank-mixed with Imazapyr and Sulfometuron-methyl labeled rates and applied as a broadcast spray.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions 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.

## For release of the following Conifer species in the Southeastern United States:

<b>Eastern white pine</b> <i>Pinus strobus</i> <b>Loblolly pine</b> <i>Pinus taeda</i>	<b>Longleaf pine</b> <i>Pinus palustris</i> <b>Shortleaf pine</b> <i>Pinus echinata</i>	<b>Slash pine</b> <i>Pinus elliottii</i> <b>Virginia pine</b> <i>Pinus virginiana</i>
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Apply 2.25 to 3.35 pints of this product (1.125 to 1.675 lbs. a.e.) per acre as a broadcast spray during late Summer or early Fall after the Conifers have hardened off. For applications at the end of the first growing season, use 1.5 pints of this product (0.75 lb. a.e.) alone or in a specified tank-mixture.



**Tank-Mixtures with Imazapyr:** For Conifer release apply 1.5 to 3 pints of this product (0.75 to 1.5 lbs. a.e.) with Imazapyr labeled rate per acre as a broadcast spray. Use only on Conifer species that are labeled for over-the-top spray for both products. Use the higher labeled rates for dense tough-to-control Woody brush and trees.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions 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.

### Herbaceous Release

When applied as directed, this product plus listed residual herbicides provide post-emergence control of the Annual weeds, control or suppression of the Perennials listed in this label and residual control of the weeds listed in the residual herbicide label. Make applications to actively growing weeds as a broadcast spray over-the-top of labeled Conifers.

**Tank-Mixtures with Sulfometuron-methyl:** To release Loblolly pines, tank-mix 0.75 to 1.125 pints (12 to 18 fl. ozs.) of this product (0.375 to 0.563 lbs. a.e.) with Sulfometuron labeled rate per acre. To release Slash pines, tank-mix 0.56 to 0.75 pint (9 to 12 fl. ozs.) of this product (0.28 to 0.375 lb. a.e.) with Sulfometuron-methyl labeled rate per acre.

In Maine and New Hampshire for release of Red pine, Balsam fir, Red spruce, White spruce, Norway spruce and Black spruce with heavy Grass and Herbaceous weeds infesting the site, up to 4.5 pints of this product (2.25 lbs. a.e.) per acre may be tank-mixed with Sulfometuron-methyl labeled rate to control Grass, Herbaceous weeds and Woody brush and apply as a broadcast spray.

For tank-mixtures with Sulfometuron-methyl, use a surfactant that is labeled for use in over-the-top Herbaceous release applications. Use of this product without a surfactant will result in reduced herbicide performance. Refer to the "MIXING AND APPLICATION INSTRUCTIONS" section of this label and the surfactant manufacturer label for more information.

Weed control may be reduced if water volumes exceed 25 gallons per acre for these treatments.

**Tank-Mixture with Atrazine:** To release Douglas fir, apply 1.5 pints of this product (0.75 lb. a.e.) with the labeled rate of Atrazine per acre. Apply only over Douglas fir that has been established for at least one full growing season. Apply in the early Spring, usually mid-March through early April. Injury will occur if applications are made after bud swell in the Spring. For this use do not add surfactant to the tank-mixture. Always read and follow the manufacturer's label for all herbicides and surfactants used.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions 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.

### WETLAND SITES

This product may be used in and around water (aquatic areas) and wetlands found in Forestry and in Power, Telephone and Pipeline rights-of-way sites, including where these sites are adjacent to or surrounding domestic water supply reservoirs, supply streams, lakes and ponds. Read and observe the following before making applications in and around water.

Consult local public water control authorities before applying this product in and around public water. Permits may be required to treat in such areas.

There is no restriction on the use of treated water for irrigation, recreation or domestic purposes.

### Use Restrictions:

DO NOT apply this product directly to water within one-half mile upstream of an active potable water intake in flowing water (i.e., river, stream, etc.) or within one-half mile of an active potable water intake in a standing body of water such as a lake, pond or reservoir. To make aquatic applications around and within one-half mile of active potable water intakes, the water intake must be turned off for a minimum period of 48 hours after application. These aquatic applications may be made ONLY in those cases where there are alternative water sources or holding ponds which would permit the turning off of an active potable water intake for a minimum period of 48 hours after the application.

**Note:** These restrictions DO NOT apply to intermittent inadvertent overspray of water in terrestrial use sites.

Do not spray open bodies of water where Woody brush, trees and Herbaceous weeds do not exist. The maximum application rate of 3.75 quarts per acre must not be exceeded in a single over-water broadcast application **except** as follows, where any labeled rate may be applied:

- Stream crossings in Utility rights-of-way.
- Where applications will result in less than 20% of the total water area being treated.

### WILDLIFE HABITAT RESTORATION AND MANAGEMENT AREAS

This product can be used for the restoration and/or maintenance of native habitat and in wildlife management areas.

**Habitat Restoration and Management:** When applied as directed, exotic and other undesirable vegetation may be controlled in habitat management areas. Applications can be made to allow recovery of native plant species, to open up water to attract waterfowl and for similar broad spectrum vegetation control requirements in habitat management areas. Spot treatments can be made to selectively remove unwanted plants for habitat enhancement. For spot treatments, keep spray off of desirable plants.

**Wildlife Food Plots:** This product may be used as a site preparation treatment prior to planting wildlife food plots. Apply as directed to control vegetation in the plot area. Any wildlife food species may be planted after applying this product or native species may be allowed to repopulate the area. If tillage is needed to prepare a seedbed, wait 7 days after application before tilling to allow for maximum effectiveness.

### Wiper Applications

For wick or wiper applications, mix 8 pints of this product (4 lbs. a.e.) with 2 gallons of clean water to make a 33% solution. A non-ionic surfactant at a rate of 10% by volume of total herbicide solution may be added.

Wiper applications can be used to control or suppress Annual and Perennial weeds listed on this label. In heavy weed stands, a double application in opposite directions may improve results. See the "WEEDS CONTROLLED" section in this label for timing, growth stage and other instructions for achieving optimum results.

### INJECTION AND FRILL APPLICATIONS

Woody vegetation may be controlled by injection or frill application of this product. Apply this product using suitable equipment which must penetrate into living tissue. Apply the equivalent of 1 ml of this product per 2 to 3 inches of trunk diameter. This is best achieved by applying 25 to 100% concentration of this product either to a continuous frill around the tree or as cuts evenly spaced around the tree below all branches. As tree diameter increases in size, better results are achieved by applying dilute material to a continuous frill or more closely spaced cuttings. Avoid application techniques that allow runoff to occur from frill or cut areas in species that exude sap freely after frills or cutting. In species such as these, make frill or cut at an oblique angle so as to produce a cupping effect and use undiluted material. For best results, apply during periods of active growth and full leaf expansion.

This treatment WILL CONTROL the following Woody species:

<b>Oak</b> <i>Quercus</i> spp.	<b>Sweet gum</b> <i>Liquidambar styraciflua</i>
<b>Poplar</b> <i>Populus</i> spp.	<b>Sycamore</b> <i>Platanus occidentalis</i>

This treatment WILL SUPPRESS the following Woody species:

<b>Black gum*</b> <i>Nyssa sylvatica</i>	<b>Hickory</b> <i>Carya</i> spp.
<b>Dogwood</b> <i>Cornus</i> spp.	<b>Maple, Red</b> <i>Acer rubrum</i>

\* This product is not approved for this use in the State of CA.

### Injection Method for Control of Japanese Knotweed (*Polygonum cuspidatum*) and Giant Knotweed (*Polygonum sachalinense*)

This product may be used for control of Japanese knotweed and Giant knotweed using individual stem treatment. Individual Knotweed stems may be treated by injecting up to 5 ml of this product undiluted directly into the hollow stem using an awl or other convenient pointed tool about 6 inches above the ground, just below a node. (Nodes are circular thickenings or scars surrounding the stem where leaves are or were previously attached.) This product is then injected into the hole. Each stem of the Knotweed plant must be treated.

This product can be injected using any injection device capable of delivering a 5 ml dose. For convenience and accuracy, use a hand-

operated injection device designed to deliver repeated pre-measured doses from a supply reservoir. Commercially available dose-measuring equipment may be adapted for this purpose. Calibrate the device to deliver a dose of 5 ml per injection cycle. A sharpened hollow probe for puncturing the stem and delivery of the herbicide can also be integrated into the delivery system.

At 5 mL per stem, 15 pints of this product (7.5 lbs. a.e.) is sufficient to treat a maximum of 1,420 stems per acre.

**Use Restriction:** DO NOT apply more than 15 pints of this product (7.5 lbs. a.e.) per acre.

## CUT STUMP APPLICATION

Woody vegetation may be controlled by treating freshly cut stumps of trees and resprouts with this product. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut vegetation close to the soil surface. Apply a 50 to 100 percent solution of this product to the freshly cut surface immediately after cutting. Delays in application may result in reduced performance. For best results, apply during periods of active growth and full leaf expansion. When used according to the directions for cut stump application, this product will CONTROL, PARTIALLY CONTROL or SUPPRESS most Woody brush and tree species, some of which are listed below:

<b>Alder</b> <i>Alnus</i> spp.	<b>Poplar*</b> <i>Populus</i> spp.
<b>Coyote brush*</b> <i>Baccharis consanguinea</i>	<b>Reed, Giant</b> <i>Arundo donax</i>
<b>Dogwood*</b> <i>Cornus</i> spp.	<b>Saltcedar</b> <i>Tamarix</i> spp.
<b>Eucalyptus</b> <i>Eucalyptus</i> spp.	<b>Sweet gum*</b> <i>Liquidambar styraciflua</i>
<b>Hickory*</b> <i>Carya</i> spp.	<b>Sycamore*</b> <i>Platanus occidentalis</i>
<b>Madrone</b> <i>Arbutus menziesii</i>	<b>Tan oak</b> <i>Lithocarpus densiflorus</i>
<b>Maple*</b> <i>Acer</i> spp.	<b>Willow</b> <i>Salix</i> spp.
<b>Oak</b> <i>Quercus</i> spp.	

\* This product is not approved for this use in the State of CA.

## RELEASE OF DORMANT BERMUDAGRASS OR BAHIAGRASS ON NON-CROP\* SITES

When applied as directed, this product will provide control or suppression of many Winter Annual weeds and Tall fescue for effective release of dormant Bermudagrass or Bahiagrass. Make applications to dormant Bermudagrass or Bahiagrass.

For best results on Winter Annuals, treat when weeds are in an early growth stage (below 6 inches in height) after most have germinated. For best results on Tall fescue, treat when Fescue is in or beyond the 4 leaf to 6 leaf stage.

\*For list of Non-crop sites this product may be used, refer to the section "NON-CROP SITES" of this label.

## WEEDS CONTROLLED

Rates for control or suppression of Winter Annual and Tall fescue are listed below.

Apply the rate of this product in 10 to 25 gallons of water per acre plus a surfactant such as a non-ionic surfactant containing 80% or more active ingredient.

Use of this product without surfactant will result in reduced herbicide performance. Refer to the "MIXING AND APPLICATION INSTRUCTIONS" section of this label and the surfactant manufacturer's label for more information.

WEEDS CONTROLLED OR SUPPRESSED*						
Weed Species	This Product per Acre (fl. ozs.)					
	6	9	12	18	24	48
<b>Barley, Little</b> <i>Hordeum pusillum</i>	S	C	C	C	C	C
<b>Bedstraw, Catchweed</b> <i>Galium aparine</i>	S	C	C	C	C	C
<b>Bluegrass, Annual</b> <i>Poa annua</i>	S	C	C	C	C	C
<b>Chervil</b> <i>Chaerophyllum tainturieri</i>	S	C	C	C	C	C
<b>Chickweed, Common</b> <i>Stellaria media</i>	S	C	C	C	C	C
<b>Clover, Crimson</b> <i>Trifolium incarnatum</i>	•	S	S	C	C	C
<b>Clover, Large hop</b> <i>Trifolium campestre</i>	•	S	S	C	C	C
<b>Speedwell, Corn</b> <i>Veronica arvensis</i>	S	C	C	C	C	C
<b>Fescue, Tall</b> <i>Festuca arundinacea</i>	•	•	•	•	S	S
<b>Geranium, Carolina</b> <i>Poa annua</i>	•	•	S	S	C	C
<b>Henbit</b> <i>Lamium amplexicaule</i>	•	S	C	C	C	C
<b>Ryegrass, Italian</b> <i>Lolium multiflorum</i>	•	•	S	C	C	C
<b>Vetch, Common</b> <i>Trifolium incarnatum</i>	•	•	S	C	C	C

C = Controlled; S = Suppressed

\* These rates apply only to sites where an established competitive turf is present.

## Release of Actively Growing Bermudagrass

**NOTE:** USE ONLY ON SITES WHERE BAHIAGRASS OR BERMUDAGRASS ARE DESIRED FOR GROUND COVER AND SOME TEMPORARY INJURY OR YELLOWING OF THE GRASSES CAN BE TOLERATED.

When applied as directed, this product will aid in the release of Bermudagrass by providing control of Annual species listed in the "WEEDS CONTROLLED" section of this label and suppression or partial control of certain Perennial weeds.

For control or suppression of those Annual species listed in this label, use 0.75 to 2.25 pints of this product (0.375 to 1.125 lbs. a.e.) as a broadcast spray in 10 to 25 gallons of spray solution per acre, plus a surfactant such as a non-ionic surfactant containing 80% or more active ingredient. Use of this product without surfactant will result in reduced herbicide performance. Refer to the "MIXING AND APPLICATION INSTRUCTIONS" section of this label and the surfactant manufacturer's label for more information. Use the lower rate when treating Annual weeds below 6 inches in height (or length of runner in Annual vines). Use the higher rate as size of plants increases or as they approach flower or seedhead formation.

Use the higher rate for partial control or longer-term suppression of the following Perennial species. Use lower rates for shorter-term suppression of growth.

Bahiagrass	Fescue (Tall)	Trumpet creeper*
Dallisgrass	Johnsongrass**	Vaseygrass

\* Suppression at the higher rate only.

\*\* Johnsongrass is controlled at the higher rate.

Use only on well-established Bermudagrass. Bermudagrass injury may result from the treatment, but regrowth will occur under moist conditions. Repeat applications in the same season may not be made, since severe injury may result.

## Bahiagrass Seedhead and Vegetative Suppression

When applied as directed in the "NON-CROP SITES" section in this label, this product will provide significant inhibition of seedhead emergence and will suppress vegetative growth for a period of approximately 45 days with single applications and approximately 120 days with sequential applications.

Apply this product 1 to 2 weeks after full green-up of Bahiagrass or after the Bahiagrass has been mowed to a uniform height of 3 to 4 inches. Applications must be made prior to seedhead emergence. Apply 5 fluid ounces of this product (0.156 lb. a.e.) in 10 to 25 gallons of water per acre, plus a surfactant such as a non-ionic surfactant containing 80% or more active ingredient. Use of this product without surfactant will result in reduced herbicide performance. Refer to the

"*MIXING AND APPLICATION INSTRUCTIONS*" section of this label and the surfactant manufacturer's label for more information.

Sequential applications of this product plus non-ionic surfactant may be made at approximately 45 day intervals to extend the period of seedhead and vegetative growth suppression. For continued vegetative growth suppression, sequential applications must be made prior to seedhead emergence.

As a first sequential application, apply 3 fluid ounces of this product (0.09 lb. a.e.) per acre plus non-ionic surfactant. A second sequential application of 2 to 3 fluid ounces (0.06 to 0.09 lb. a.e.) per acre plus non-ionic surfactant may be made approximately 45 days after the last application.

**Use Restriction:** Apply no more than 2 sequential applications per year.

### **Annual Grass Growth Suppression**

For growth suppression of some Annual grasses, such as Annual ryegrass, Wild barley and Wild oats growing in coarse turf on roadsides or other industrial areas, apply 3 to 4 fluid ounces of this product (0.09 to 0.125 lb. a.e.) in 10 to 40 gallons of spray solution per acre. Mix a surfactant such as a non-ionic surfactant containing 80% or more active ingredient. Use of this product without surfactant will result in reduced herbicide performance. Refer to the "*MIXING AND APPLICATION INSTRUCTIONS*" section of this label and the surfactant manufacturer's label for more information. Apply when Annual grasses are actively growing and before seedheads are in the boot stage of development. Treatments made after seedhead emergence may cause injury to the desired Grasses.

## **STORAGE AND DISPOSAL**

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

**PESTICIDE STORAGE:** Store above 10°F (-12°C) to keep from crystallizing.

Crystals will settle to the bottom. If allowed to crystallize, place in a warm room, 68°F (20°C), for several days to redissolve and roll or shake container or recirculate mini-bulk containers to mix well before using.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product that cannot be used or chemically reprocessed must be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, State and Local procedures.

### **CONTAINER HANDLING:**

**Nonrefillable Container (rigid material; ≤ 5 gallons):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container 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 one-fourth 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. Dispose of empty container in a sanitary landfill, by incineration or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**Nonrefillable Container (rigid material; > 5 gallons up to < 250 gallons):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container one-fourth full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store for later use or disposal. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill, by incineration or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**Refillable Container (≥ 250 gallons & bulk):** Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

## **WARRANTY—CONDITIONS OF SALE**

OUR DIRECTIONS FOR USE of this product are based upon tests believed reliable. Follow directions carefully. Timing and method of application, weather and crop conditions, mixtures with other chemicals not specifically directed and other influencing factors in the use of this product are beyond the control of the Seller. To the extent consistent with applicable law, Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith.

To the extent consistent with applicable law, in no case shall the Manufacturer or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product when such use and/or handling is not in strict accordance with directions given herewith. The foregoing is a condition of sale by the Seller and is accepted as such by the Buyer.