



May 9, 2025

Denise Steed
Kodiak Corporation
65 Glenn Street
Lawrence, MA 01843

Project: **Invasive Plant Management Strategy (IPMS)**

Rosemont Street Bridge

Haverhill, MA 01830

City of Haverhill Contract No. IFB006.25

Essex Horticulture Project No. 25009

Dear Ms. Steed,

Please find our Invasive Plant Management Strategy (IPMS), attached. We have created a plan for you that provides guidelines for invasive species management during construction. We are glad to discuss this plan with you and the project partners and make modifications, if needed, to ensure the success of the project and protect the site from invasive species infestation caused by construction soil disturbance.

Upon review, please let me know if you have any questions or concerns.

Thank you,

Caitlyn Rodriguez
Ecological Restoration Manager, Essex Horticulture

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1.0 Introduction

The intention of this invasive plant management strategy is to provide a guide that reduces the invasive plant species population within the project area to the lowest levels possible and prevents further infestations following construction activities. These measures will not only reduce invasive pressures within limit of work but will also minimize the potential for the site functioning as an invasive plant seed source to adjacent areas and protect public thoroughways and infrastructure from damage caused by aggressive invasive growth.

2.0 Identified Site Characteristics

2.1 Method

On Wednesday, April 30, 2025, Caitlyn Rodriguez of Essex Horticulture walked the project site to review the project plans and identify areas to be addressed by this invasive species management plan. This plan focused on intervention of invasive species listed by the Massachusetts Invasive Plant Advisory Group (MIPAG) within the limit of disturbance as demarcated by the installed silt fence.

2.2 Site Description

This project aims to make replacements to the bridge crossing the Little River on Rosemont Street in Haverhill, MA. Some clearing and grubbing has already begun on the site, with fencing and signage delineating the limit of treatments. The only area that had not been cleared yet but is slated for planting of 12 sumacs and invasive species management, is along the wood fence of the abutting property (129 Rosemont Street) and is marked on the attached drawing. Kodiak Corporation has noted that this area is to be cleared and planted in summer 2026. Aside from the uncleared area, which is dense with mature invasive plant species, the other focus areas are relatively sparse in invasive plant populations.

2.3 Objective

This invasive management plan describes intensive management of target plant species for a maximum of 24 hours with two technicians. The plan aims to produce a final product in which these invasive species are controlled to the highest degree possible during the project schedule while minimizing the risk of the contamination and spread of target species.

2.4 Site Conditions

Most of the site occurs along the embankment of the Little River. Areas to be targeted for invasive management are illustrated on the marked drawings at the end of this plan (Appendix A). Plant species are organized into two categories: MIPAG invasive and native. MIPAG species are the targets for treatment under this plan. Plant species identified during the April 30th site visit include:

MIPAG-Listed Invasives (plants to be targeted for treatments):

- Asiatic bittersweet (*Celastrus orbiculatus*)
- Multiflora rose (*Rosa multiflora*)
- Tatarian honeysuckle (*Lonicera tatarica*)
- Burning bush (*Euonymus alatus*)
- Garlic mustard (*Alliaria petiolata*)

Native Species (plants to be protected and/or untreated):

- Virginia rose (*Rosa virginiana*)
- Poison ivy (*Toxicodendron radicans*)

3.0 Invasive Management Plan

3.1 Method

3.1.1 Clearing and Grubbing

Most of the areas targeted by this plan are being cleared and grubbed as part of the General Contractor's (Kodiak Corporation) construction process. This mechanical process will adequately control tree and shrub invasive plant species, which include burning bush, honeysuckle, and multiflora rose. During clearing and grubbing, no soils in the areas identified as contaminated with invasive plant materials are to be translocated across the site. If necessary, soils are to be removed from the site and disposed of or treated in such a way that prevents transfer and re-establishment of viable invasive plant material (seeds, roots, and stems) in any location.

3.1.2 Herbicide Applications

Herbicide applications will be performed by a Massachusetts licensed pesticide applicator performing spray applications using a low-volume backpack or handheld sprayer. Spray applications will commence after soils have been cleared and grubbed.

Herbicide applications should be performed using a chemical approved for use near aquatic resources, such as RoundUp Custom or approved equal. The herbicide should be applied with a non-ionic surfactant to increase efficacy and blue indicator dye to easily identify treated materials. Treatment should not occur when rain is forecasted within 2 hours, and wind speeds are higher than 10 miles per hour. Pesticide application warning signs are to be posted with date of application for at least 24 hours following treatments. Signs are to be placed along the outside edges of treated areas to prevent pedestrians, pets, and workers from coming in contact with treated materials before they dry.

3.1.3 Timing/Schedule of Activities

Timing is essential for efficiency and best possible results. The proposed schedule and map of target areas can be found below.

2025 Invasive Management Timeline

Summer (June) 2025

Initial Treatment for Zones A, B, C, and D using foliar spray application of RoundUp Custom (or approved equivalent) with non-ionic surfactant and blue indicator dye. Due to the existing soil seed bank, the applicator should treat any additional MIPAG-listed invasive plant species that emerge following soil disturbance, not just the species listed in Section 2.4.

A report documenting observations and herbicide treatments is to be submitted to the General Contractor, Landscape Architect, and other relevant stakeholders.

Late Summer to Early Fall (August/September) 2025

Return to monitor and spot-spray Zones A through D.

A report documenting observations and herbicide treatments is to be submitted to the General Contractor, Landscape Architect, and other relevant stakeholders.

2026 Invasive Management Timeline

Summer (June) 2026

Initial spot spray applications will be made to all MIPAG-listed plants with a backpack or handheld sprayer in Zone E. Due to the existing soil seed bank and reasonable risk associated with bringing in new soils, the applicator should treat any additional MIPAG-listed invasive plant species that emerge, not just the species listed in Section 2.4.

Zones A through D should continue to be monitored and spot-treated, though invasive species re-emergences should be sparse.

A report documenting observations and herbicide treatments is to be submitted to the General Contractor, Landscape Architect, and other relevant stakeholders.

Late Summer to Early Fall (August/September) 2026

Return to monitor and spot-spray all target areas (Zones A through E).

A report documenting observations and herbicide treatments is to be submitted to the General Contractor, Landscape Architect, and other relevant stakeholders.

Suggested 2027 Continued Monitoring & Spot-Treatments:

As section E will not be available for herbicide treatments until summer 2026, Essex Horticulture recommends continued monitoring and treatment into 2027 by others.

Early to Mid-Summer (June) 2027

Return to monitor and spot-spray all target areas.

A report documenting observations and herbicide treatments is to be submitted to the General Contractor, Landscape Architect, and other relevant stakeholders.

Late Summer to Early Fall (August/September) 2027

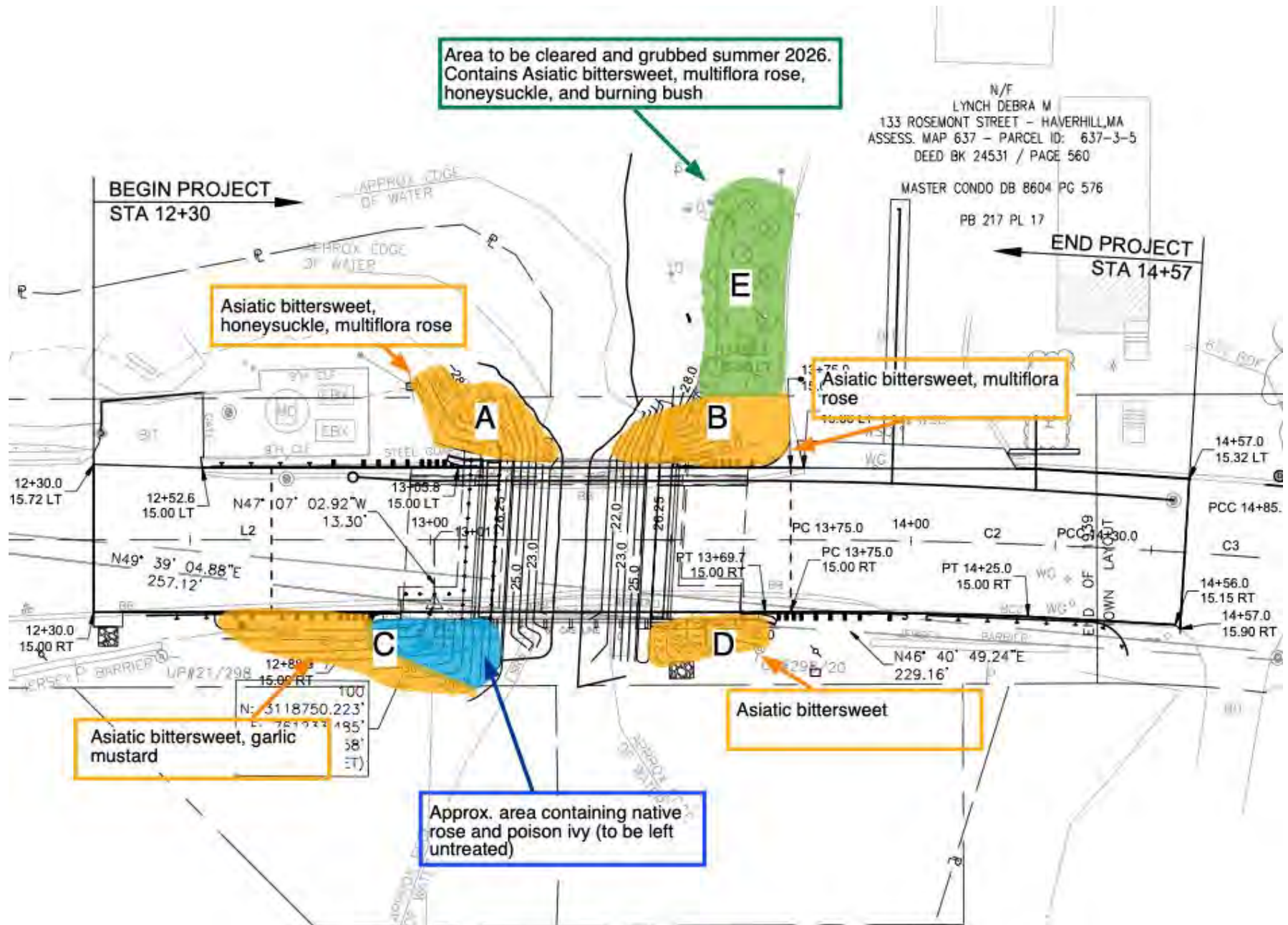
Return to monitor and spot-spray all target areas.

A report documenting observations and herbicide treatments is to be submitted to the General Contractor, Landscape Architect, and other relevant stakeholders.

Essex Horticulture Qualifications

Essex Horticulture has met prequalification standards and approval by MassDOT Landscape Design Section for the work of providing an Invasive Plant Management Strategy per Item 102.33 and implementing that strategy under Item 102.3 Herbicide Treatment of Invasive Plants. Essex has provided management plans to private agencies and municipalities throughout the Commonwealth. It employs Massachusetts Certified Horticulturists, Arborists, Landscape Professionals, and Invasive Plant Management Certified Technicians. Massachusetts Department of Agriculture Resources Pesticide Applicator Licenses have been included in this plan.

Appendix A: Invasive Species Management by Zone



Rosemont Street Bridge – Haverhill, MA

2025-2027 Recommended Invasive Plant Treatment Method by Species

Zone	Species	Size	Treatment Method
A	Asiatic bittersweet (<i>Celastrus orbiculatus</i>), Tatarian honeysuckle (<i>Lonicera tatarica</i>), Multiflora rose (<i>Rosa multiflora</i>)	Any.	Foliar spray of Round-Up Custom with non-ionic surfactant and blue indicator dye.
B	Asiatic bittersweet (<i>Celastrus orbiculatus</i>), Multiflora rose (<i>Rosa multiflora</i>)	Any.	Foliar spray of Round-Up Custom with non-ionic surfactant and blue indicator dye.
C	Asiatic bittersweet (<i>Celastrus orbiculatus</i>), Garlic mustard (<i>Alliaria petiolata</i>)	Any.	Foliar spray of Round-Up Custom with non-ionic surfactant and blue indicator dye.
D	Asiatic bittersweet (<i>Celastrus orbiculatus</i>)	Any.	Foliar spray of Round-Up Custom with non-ionic surfactant and blue indicator dye.
E	Asiatic bittersweet (<i>Celastrus orbiculatus</i>), Multiflora rose (<i>Rosa multiflora</i>), Tatarian honeysuckle (<i>Lonicera tatarica</i>), Burning bush (<i>Euonymus alatus</i>)	Any.	Foliar spray of Round-Up Custom with non-ionic surfactant and blue indicator dye.

Appendix B: Site Photographs

Invasive Species Site Photos



Zone E to be cleared and grubbed by summer 2026



Small honeysuckle to be treated in Zone A



Bittersweet mixed with poison ivy and other natives

Appendix C: RoundUp Custom MSDS Sheet and Product Label



Roundup CUSTOM[®]

FOR AQUATIC & TERRESTRIAL USE



A broad-spectrum postemergence herbicide for aquatic and industrial, turf, ornamental, forestry, roadside, utility rights-of-way, select crop, and other listed terrestrial weed control.

(For a complete list of aquatic and terrestrial use sites, see the Directions for Use section of the attached labeling.)

ACTIVE INGREDIENT:

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

OTHER INGREDIENTS:..... 46.2%
100.0%

* Contains 648 grams of the active ingredient glyphosate, in the form of its isopropylamine salt per liter, or 5.4 pounds per U.S. gallon, which is equivalent to 480 grams of the acid, glyphosate, per liter or 4.0 pounds per U.S. gallon (39.9% by weight).

EPA Reg. No. 524-343

EPA Est. 524-IA-1

Keep Out of Reach of Children CAUTION

See inside for additional Precautions.
COMPLETE DIRECTIONS FOR USE

Not all products listed on this label are registered for use in California. Check the registration status of each product in California before using.

**FOR PRODUCT INFORMATION OR ASSISTANCE USING THIS PRODUCT,
CALL TOLL-FREE, 1-866-99BAYER (1-866-992-2937)**

**IN CASE OF AN EMERGENCY INVOLVING THIS PRODUCT OR FOR MEDICAL
ASSISTANCE, CALL COLLECT, DAY OR NIGHT, 1-800-334-7577**

Packed for:
BAYER CROPS SCIENCE LP
800 N. LINDBERGH BLVD.
ST. LOUIS, MISSOURI 63167 USA
©2020 Bayer Group. All rights reserved.

Read the entire label before using this product.

Use only according to label directions.

Read the "LIMIT OF WARRANTY AND LIABILITY" statement at the end of this labeling before buying or using. If terms are not acceptable, return at once unopened.

AVOID CONTACT OF THIS HERBICIDE WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, AS SEVERE PLANT INJURY OR DESTRUCTION COULD RESULT.

THIS IS AN END-USE PRODUCT. BAYER CROPSCIENCE LP DOES NOT INTEND AND HAS NOT REGISTERED IT FOR REFORMULATION OR REPACKAGING.

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1.0 INGREDIENTS

ACTIVE INGREDIENT:

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

OTHER INGREDIENTS:

53.8%

46.2%

100.0%

*Contains 648 grams of the active ingredient glyphosate, in the form of its isopropylamine salt per liter, or 5.4 pounds per U.S. gallon, which is equivalent to 480 grams of the acid, glyphosate, per liter or 4.0 pounds per U.S. gallon (39.9% by weight).

2.0 IMPORTANT PHONE NUMBERS

1. FOR PRODUCT INFORMATION OR ASSISTANCE USING THIS PRODUCT, CALL TOLL-FREE, 1-866-99BAYER (1-866-992-2397)
2. IN CASE OF AN EMERGENCY INVOLVING THIS PRODUCT OR FOR MEDICAL ASSISTANCE, CALL COLLECT, DAY OR NIGHT, 1-800-334-7577

3.0 PRECAUTIONARY STATEMENTS

3.1 Hazards to Humans and Domestic Animals

Keep out of reach of children CAUTION

DOMESTIC ANIMALS: This product is considered to be relatively nontoxic to dogs and other domestic animals; however, ingestion of this product or large amounts of freshly sprayed vegetation could result in temporary gastrointestinal irritation (vomiting, diarrhea, colic, etc.). If such symptoms are observed, provide the animal with plenty of fluids to prevent dehydration. Call a veterinarian if symptoms persist for more than 24 hours.

Personal Protective Equipment (PPE)

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

Follow manufacturer's instructions for cleaning/maintaining PPE (Personal Protective Equipment). If there are no instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations:

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

3.2 Environmental Hazards

Killing aquatic weeds can result in depletion or loss of oxygen in the water due to decomposition of dead plant material. This oxygen loss can cause fish suffocation. Consult with your State agency with primary responsibility for regulating pesticides before applying to public waters to determine if a permit is required. For terrestrial uses, do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high-water mark, except if applying aerially over the forest canopy. Do not contaminate water when cleaning equipment or disposing of equipment wash waters and rinsate.

3.3 Physical or Chemical Hazards

Spray solutions of this product may be mixed, stored and applied using stainless steel, fiberglass, plastic or 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. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas, which can form a highly combustible gas mixture. This gas mixture could flash or explode if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source and cause serious personal injury.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. This product may only be used in accordance with the Directions for Use on this label or on separately published supplemental labeling. Supplemental labeling for this product can be obtained from your Authorized Bayer CropScience LP Retailer or Bayer CropScience LP Representative.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

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

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

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses. Keep people and pets off treated areas until spray solution has dried.

4.0 STORAGE AND DISPOSAL

Proper pesticide storage and disposal are essential to protect against exposure to people and the environment due to leaks and spills, excess product or waste, and vandalism. Do not allow this product to contaminate water, foodstuffs, feed or seed by storage and disposal.

PESTICIDE STORAGE: STORE ABOVE 5°F (-15°C) TO KEEP PRODUCT FROM CRYSTALLIZING. Crystals will settle to the bottom. If allowed to crystallize, warm to 68°F (20°C) to redissolve and roll or shake container or recirculate contents of larger containers to mix well before using. Store pesticides away from food, pet food, feed, seed, fertilizers, and veterinary supplies. Keep container closed to prevent spills and contamination. See individual container label for additional storage conditions, if any.

PESTICIDE DISPOSAL: To avoid wastes, use all material in the container, including rinsate, by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program. Such programs are often run by state or local governments or by industry. All disposal must be in accordance with applicable federal, state and local regulations and procedures.

CONTAINER HANDLING AND DISPOSAL: Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in this container. Contact your state regulatory agency to determine allowable practices in your state.

Triple rinse or pressure rinse (or equivalent) this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or mix-tank and continue to drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or mix-tank, or store rinsate for later use or disposal. Continue to drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or mix-tank and continue to drain for 10 seconds after the flow begins to drip. Place container so that it can drain directly into application equipment or mix-tank while rinsing, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle into the side of the container and rinse at about 40 PSI for at least 30 seconds. Continue to drain for 10 seconds after the flow begins to drip.

Once properly rinsed, some plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest collection site, contact your chemical dealer or Bayer CropScience LP at 1-866-99BAYER (1-866-992-2937).

If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

5.0 PRODUCT INFORMATION

Product Description: This product is a postemergence, systemic herbicide that, when mixed in the spray tank with a surfactant that is approved for aquatic use, may be used for both aquatic and terrestrial weed control. This product provides broad-spectrum control of many annual and perennial weeds, woody brush, trees and vines. This product does not control submerged weeds or provide residual weed control in soil. It is formulated as a water-soluble liquid that, unless otherwise directed, requires dilution with water or another carrier and the addition of a surfactant according to label directions and intended use site before application using standard and specialized pesticide application equipment.

Mechanism of Action: The active ingredient in this product inhibits an enzyme found only in plants and microorganisms that is essential to the formation of specific amino acids.

No Soil Activity: This product binds tightly to soil particles and does not provide residual weed control. Weeds must be emerged at the time of application to be controlled by foliar application of this product. Weed seeds in the soil will not be affected by this product and will continue to germinate.

Unattached plant rhizomes and rootstocks beneath the soil surface will also not be affected by this product.

Biological Degradation: Degradation of this product is primarily a biological process carried out by soil microbes.

Stage of Weeds: Aquatic weeds must have foliage above the water surface in order to be controlled by this product. On terrestrial sites, annual and perennial weeds are easiest to control when they are small. See the "WEEDS CONTROLLED" section of this label for more information on the control of specific weeds.

Cultural Considerations: Reduced weed control could result when this product is applied to annual or perennial weeds that have been mowed, grazed or cut, and have not been allowed to re-grow prior to application. Always use the highest application rate of this product within the given range when weed growth is heavy or dense, or when weeds are growing in an undisturbed (non-cultivated) area. Reduced weed control could result when this product is applied to weeds that show signs of disease or insect damage, are covered with dust, or are surviving under poor growing conditions.

Spray Coverage: For enhanced results, spray coverage must be uniform and complete. Do not spray foliage to the point of runoff.

Rainfastness: Rainfall or submersion of aquatic weeds by wave action within 4 hours of application could wash this product off of the foliage and a second application might be needed for acceptable weed control. Refer to specific use sections of this label for additional information on minimum intervals required before re-application of this product.

Time to Symptoms: This product moves through the plant from the point of foliage contact to and into the root system. Visible effects are a gradual wilting and yellowing of the plant that advances to complete browning of aboveground growth and deterioration of underground plant parts. Effects are visible on most annual weeds within 2 to 4 days, but on most perennial weeds, effects might not be visible for 7 or more days after application. Extremely cool or cloudy weather following application could slow activity of this product and delay development of visual symptoms.

Maximum Application Rates: The maximum application or use rates stated throughout this label are given in units of volume (fluid ounces or quarts) of this product per acre. However, the maximum allowable application rates apply to this product combined with the use of any and all other herbicides containing the active ingredient glyphosate, whether applied separately or in a tank mixture, on a basis of total pounds of glyphosate (acid equivalents) per acre. If more than one glyphosate-containing product is applied to the same site within the same year, you must ensure that the total use of glyphosate (pounds acid equivalents) does not exceed the maximum allowed. See the "INGREDIENTS" section of this label for necessary product information.

Unless otherwise specified on this label, the combined total of all applications of this product on a site must not exceed 8 quarts (8 pounds of glyphosate acid) per acre per year.

NOTE: Use of this product in any manner not consistent with this label could result in injury to persons, animals, crops or other desirable vegetation, or have other unintended consequences.

6.0 WEED RESISTANCE MANAGEMENT

GROUP	9	HERBICIDE
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Glyphosate, the active ingredient in this product, is a Group 9 herbicide based on the mechanism of action classification system of the Weed Science Society of America. Any weed population can contain plants that are naturally resistant to Group 9 herbicides. Weeds resistant to Group 9 herbicides can be effectively managed by using another herbicide from a different Group (either alone or in a mixture according to label directions), by using other cultural or mechanical methods of weed control, or a combination of the two. Consult your local company representative, state cooperative extension agent, professional consultant or other qualified authority to determine appropriate actions for controlling specific resistant weeds.

6.1 Weed Management Practices

Resistant populations arise when rare individual plants are uncontrolled by a normal dose of a given herbicide under normal environmental conditions.

In the absence of other control measures these individuals survive, produce seed, and eventually become the dominant biotype in the field through continuous selection. The best means of reducing this selection is to use diverse weed control practices such as multiple herbicides with different mechanisms of action, and often in combination with various mechanical and cultural practices.

To minimize the occurrence of herbicide-resistant biotypes, including those resistant to glyphosate, implement the following weed management practice options that are practical to your situation. These management practices are applicable to reduce the spread of confirmed resistant biotypes (managing existing resistant biotypes) and to reduce the potential for selecting for resistance in new species (proactive resistance management).

- Use a diversified approach toward weed management focused on preventing weed seed production and reducing the number of weed seeds in the soil.
- Plant crops into fields that are as weed-free as possible and then keep them as weed-free as possible.
- Plant seed that is as weed-free as possible.
- Scout fields and application sites routinely, before and after herbicide application.
- Use multiple herbicide mechanisms of action that are effective against the most troublesome weeds at your application site and against those with known resistance.
- Apply herbicides at application rates listed on the label when weeds are within the size range indicated on the label.
- Emphasize cultural practices that suppress weeds by using crop competitiveness.
- Use mechanical and biological weed management practices, where appropriate.
- Prevent field-to-field and within-field movement of weed seed or vegetative propagules.
- Manage weed seed at harvest and after harvest to prevent a buildup of the weed seedbank.

6.2 Management of Glyphosate-Resistant Biotypes

Appropriate testing is needed to determine if a weed is resistant to glyphosate. Call 1-866-99BAYER (1-866-992-2937) or contact your Bayer CropScience LP representative to determine if resistance in any particular weed biotype has been confirmed in your area, or visit on the Internet at

www.weedresistancemanagement.com or www.weedscience.org.

Glyphosate-resistant weeds can be controlled or managed by applying this product in combination with residual preemergence herbicides and/or other postemergence herbicides labeled for control of the targeted weed in the crop being grown or on the site of application. For more information, see the "WEEDS CONTROLLED" section of this label.

Since the occurrence of resistant weeds is difficult to detect prior to use, Bayer CropScience LP accepts no liability for any losses that result from the failure of this product to control resistant weeds.

7.0 MIXING

Spray solutions of this product may be mixed, stored and applied using clean stainless steel, fiberglass, plastic or 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.

Eliminate any risk of siphoning the contents of the tank back into the carrier source while mixing. Use approved anti-back-siphoning devices where required by state or local regulations.

A 50-mesh nozzle screen or line strainer on the spray equipment is adequate. Clean spray parts promptly after using this product by thoroughly flushing with water.

7.1 Mixing with Water

PERFORMANCE OF THIS PRODUCT CAN BE SIGNIFICANTLY REDUCED IF WATER CONTAINING SOIL SEDIMENT IS USED AS CARRIER. DO NOT MIX THIS PRODUCT WITH WATER FROM PONDS OR DITCHES THAT IS VISIBLY MUDDY OR MURKY. This product mixes readily with water. Mix spray solutions of this product as follows. Begin filling the mixing tank or spray tank with clean water. Add the required amount of this product near the end of the filling process and mix gently. Foaming of the spray solution can occur during mixing. To prevent or minimize foaming, mix gently, terminate by-pass and return lines at the bottom of the tank and, if necessary, add an appropriate anti-foam or defoaming agent to the spray solution.

7.2 Surfactant

Unless otherwise directed, this product requires the addition of 2 or more quarts of a nonionic surfactant that is labeled for use with herbicides per 100 gallons of spray solution (0.5% or more by volume). Unless otherwise directed, use a higher concentration of surfactant when any of the following conditions apply to the use of this product:

- Adding surfactants that contain less than 70 percent active ingredient
- Making a broadcast application using a high carrier volume or using handheld spray equipment
- Applying under adverse growing conditions or anytime weeds are under stress
- Applying as a tank-mix with other products
- Applying to hard-to-control weeds, woody brush, trees and vines

NOTE: For direct application of spray solutions of this product on emerged aquatic weeds or for use in intertidal areas below the mean high-water mark, or in application areas where a buffer that will ensure no overspray of an adjacent body of water cannot be maintained, a surfactant that is also approved for aquatic use must be used. For terrestrial applications, surfactant is also needed in the spray solution, but does not have to be approved for aquatic use.

RESTRICTION: If a surfactant that is NOT approved for aquatic use is added to the spray solution, DO NOT apply directly to or over water or use in intertidal areas below the mean high-water mark.

Check with your local State agency with primary responsibility for regulating pesticides for additional information about surfactants that are approved for aquatic use.

Read and follow all precautionary statements and directions for use on the surfactant label.

All reference throughout this label to concentration of surfactant in the spray solution is on a percentage-of-volume basis. Refer to the table below to achieve the appropriate concentration of surfactant in the spray solution.

Desired Volume of Spray Solution	Amount of Surfactant to Achieve Indicated Concentration in Spray Solution (percent by volume)					
	0.5%	0.75%	1%	1.5%	4%	8%
1 gallon	2/3 fl oz	1 fl oz	1.3 fl oz	2 fl oz	5 fl oz	10 fl oz
25 gallons	16 fl oz	24 fl oz	1 qt	1.5 qts	4 qts	2 gals
100 gallons	2 qts	3 qts	1 gal	1.5 gals	4 gals	8 gals

2 tablespoons = 1 fluid ounce (fl oz)

7.3 Tank Mixtures

This product does not provide residual weed control. This product may be tank-mixed with other herbicides to provide residual weed control in the soil, a broader weed control spectrum or an alternative mechanism of action.

NOT ALL TANK-MIX PRODUCTS LISTED ON THIS LABEL ARE APPROVED FOR USE ON AQUATIC SITES. Refer to each individual label for all products in the tank mixture for approved use sites and application rates.

When a tank-mix with a generic active ingredient, such as 2,4-D or dicamba, or any other product or material, is listed on this label, the user is responsible for ensuring that the specific application being made and the use site is included on the label of the product used in the mix.

Bayer CropScience LP has not tested all tank-mix product formulations for compatibility, antagonism or reduction in product performance. Mixing this product with herbicides or other materials not specified on this label could result in reduced performance of this product. To the extent consistent with applicable law, buyer and all users are responsible for any loss or damage in connection with the use or handling of mixtures of this product with herbicides or other materials that are not expressly specified on this label, or on separate supplemental labeling or Fact Sheets published for this product.

Refer to all individual product labels, supplemental labeling and Fact Sheets for all products in the tank mixture, and observe all precautions and limitations on the label, including any application timing restrictions, soil restrictions, minimum re-cropping intervals and/or crop rotation restrictions. Use according to the most restrictive precautionary statements for each product in the tank mixture.

This product may be applied at any rate listed on this label in a tank mixture with the following products to provide preemergence and/or improved postemergence control of weeds listed on the individual product labels.

Arsenal; Arsenal Herbicide Applicators Concentrate; Banvel; Banvel 480; Barricade 4L; Barricade 65WG; Certainty® Turf; Chopper Gen2; Crossbow; Endurance; Escort XP; Forestry Garlon 4 Specialty; Forestry Garlon XLT Specialty; Gallery SC; Gallery 75 Dry Flowable Specialty; Garlon 3A Specialty; Garlon 4 Specialty; Garlon 4 Ultra Specialty; Goal 2XL; Goalfender; Habitat; Hyvar X; Hyvar X-L; Karmex DF; Krenite S Brush Control Agent; Krovat 1 DF; Landmark; Landmark XP; Oust Extra; Oust XP; Outrider®; Plateau; Poast; Poast Plus; Ronstar 50 WSP; Ronstar Flo; Ronstar G; Sahara DG; Spike 20P Specialty; Spike 80 DF Specialty; Stalker; Surflan AS Specialty; Surflan Flex; Surflan Flex T&O; Surflan XL 2G; Surflan Pro; Telar XP; Tordon 101 Mixture Specialty; Tordon 22K Specialty; Tordon K Herbicide Specialty; Transline Specialty; Vanquish; Velpar DF CU; Velpar DF VU; Velpar L CU; Velpar L VU; 2,4-D; atrazine; dicamba; bromacil; diuron; imazapyr; metsulfuron; oxyzalin; pendimethalin, prodiamine; simazine; sulfosulfuron; trichlopyr

When used in combination as described on this label and to the extent consistent with applicable law, the liability of Bayer CropScience LP shall in no manner extend to any damage, loss or injury not solely and directly caused by the inclusion of the Bayer CropScience LP product in such combination use.

7.4 Tank-Mixing Procedure

Always predetermine the compatibility of all tank-mix products in the carrier by mixing small proportional quantities in advance.

Add individual tank-mix components to the tank as follows: wettable powders; flowables; emulsifiable concentrates; drift reduction additives; water soluble liquids (this product); nonionic surfactants. Ensure that the tank-mix products are well mixed in the spray solution before adding this product.

Mix only the quantity of spray solution that will be applied that day. Application of tank-mix solutions that are allowed to stand overnight could result in reduced weed control.

Maintain gentle agitation at all times until the contents of the tank are sprayed out. If the spray mixture is allowed to settle, agitate thoroughly to resuspend the mixture before resuming application.

Keep by-pass line on or near the bottom of the tank to minimize foaming.

A 50-mesh nozzle screen or line strainer on the spray equipment is adequate.

7.5 Mixing Spray Solution Concentrations

All reference throughout this label to concentration of this product in a spray solution is on a percentage-of-volume basis.

Prepare the desired volume of spray solution at a given concentration by mixing the amount of this product indicated in the following table with water.

Desired Volume of Spray Solution	Amount of Roundup Custom for Aquatic and Terrestrial Use to Achieve Indicated Concentration in Spray Solution (percent by volume)					
	0.5%	0.75%	1%	1.5%	4%	8%
1 gallon	2/3 fl oz	1 fl oz	1.3 fl oz	2 fl oz	5 fl oz	10 fl oz
25 gallons	16 fl oz	24 fl oz	1 qt	1.5 qts	4 qts	2 gals
100 gallons	2 qts	3 qts	1 gal	1.5 gals	4 gals	8 gals

2 tablespoons = 1 fluid ounce (fl oz)

For filling backpack and pump-up sprayers, consider mixing the appropriate amount of this product with water in a larger container and then filling the sprayer from the larger container.

7.6 Colorants and Dyes

Colorants and marking dyes may be added to spray solutions of this product; however, they could reduce the performance of this product. Use colorants and dyes according to the manufacturer's directions.

7.7 Drift Reduction Additives

Drift reduction additives may be used with all application equipment types, except wiper applicators, sponge bars and controlled droplet applicators (CDA). When a drift reduction additive is used, read and carefully follow all precautions, limitations and all other information appearing on the product label. The use of drift reduction additives can affect spray coverage, which could result in reduced performance of this product.

8.0 APPLICATION EQUIPMENT AND TECHNIQUES

This product may be applied using the following equipment:

Aerial Application Equipment—fixed-wing and helicopter

Ground Application Equipment—boom or boomless systems, pull-type sprayers, floaters, pick-up sprayers, spray coupes and other ground broadcast application equipment

Handheld Sprayers—backpack sprayers, pump-up pressure sprayers, handguns, handwands, mistblowers*, lances and other handheld and motorized spray equipment used to direct the spray onto weed foliage.

*This product is not registered in California or Arizona for use in mistblowers.

Selective Application Equipment—recirculating sprayer, shielded and hooded sprayers, wiper applicator, sponge bar, single or hollow stem injectors, tree injector, spray bottle

Injection Systems—aerial or ground injection sprayers

Controlled Droplet Applicator (CDA)—handheld or boom-mounted applicators that produce a spray consisting of a narrow range of droplet sizes

APPLY THIS PRODUCT USING PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF ACCURATELY DELIVERING DESIRED VOLUMES.

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

8.1 Spray Drift Management

AVOID CONTACT OF THIS HERBICIDE WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, AS SEVERE PLANT INJURY OR DESTRUCTION COULD RESULT.

Do not allow the herbicide solution to mist, drip, drift, or splash onto desirable vegetation, as even small quantities of this product can cause severe damage or destruction to the crop, plants or other vegetation on which application was not intended.

AVOID DRIFT. USE EXTREME CARE TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS WHEN APPLYING THIS PRODUCT.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather-related factors determines the potential for spray drift. The applicator and the grower are

responsible for considering all these factors when making decisions regarding the application of this product.

The likelihood of injury occurring as the result of spray drift while applying this product increases when winds are gusty, as wind velocity increases, when wind direction is constantly changing or when there are other meteorological conditions that favor spray drift. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or generation of fine particles (mist) that are likely to drift.

TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFERS MUST BE MAINTAINED.

AVOID APPLYING THIS PRODUCT AT EXCESSIVE SPEED OR SPRAYER PRESSURE.

8.2 Aerial Application Equipment

Unless otherwise prohibited, all broadcast applications of this product described on this label may be made using aerial application equipment where appropriate, provided that the applicator complies with the precautions and restrictions specified on this label and on separate supplemental labeling published for this product.

DO NOT APPLY THIS PRODUCT USING AERIAL APPLICATION EQUIPMENT EXCEPT UNDER CONDITIONS SPECIFIED ON THIS LABEL OR ON SEPARATELY PUBLISHED SUPPLEMENTAL LABELING FOR THIS PRODUCT.

FOR SPECIFIC USE INSTRUCTIONS, RESTRICTIONS AND REQUIREMENTS RELATED TO THE AERIAL APPLICATION OF THIS PRODUCT IN CALIFORNIA OR SPECIFIC COUNTIES THEREIN, REFER TO THE LIMITATIONS ON AERIAL APPLICATION IN THAT STATE OR COUNTY PRESENTED IN THIS SECTION.

Apply this product at the rate specified on this label in 3 to 25 gallons of water per acre, unless otherwise directed. Use a larger spray volume within this range where weeds, brush, trees and vines are dense or form multiple canopy layers.

Avoid direct application to any body of water.

Drift control reduction additives may be used.

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

Aircraft Maintenance

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 COULD RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR IS MOST SUSCEPTIBLE. Maintaining an organic coating (paint) that meets aerospace specification MIL-C-38413 can help prevent corrosion.

AERIAL SPRAY DRIFT MANAGEMENT

The following drift management requirements must be followed to minimize off-target drift movement during aerial application. These requirements do not apply to forestry applications.

1. The distance of the outermost nozzles on the boom must not exceed $\frac{3}{4}$ the length of the wingspan or rotor.
2. Nozzles must be pointed downwind parallel with the air stream and never be always downwards more than 45 degrees. Where states have more stringent regulations, they must be followed.

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 the application is made improperly or under unfavorable environmental conditions, such as in windy, high temperature with low humidity, and/or inversion conditions as described below.

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:** Operate at a spray pressure towards the lower end of the range listed 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 provides uniform coverage.
- **Nozzle orientation:** Orienting nozzles so that the spray is released backwards, parallel to the air stream, 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 $\frac{3}{4}$ of the wingspan or rotor length can further reduce drift without reducing swath width.
- **Application height:** Application must be made at a height of 10 feet or less above the top of the tallest plants, unless a greater height is required for aircraft safety. Making the application at the lowest height that is safe reduces the exposure of the droplets to evaporation and wind.

Swath Adjustment

When an application is made in the presence of a crosswind, the swath will be displaced downwind. Therefore, on the upwind and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Increase the swath adjustment distance with increasing drift potential (higher wind, smaller droplets, etc.).

Wind

Drift potential is lowest at wind speeds of between 2 and 10 miles per hour. However, many factors, including droplet size and equipment type, determine drift potential at any given wind speed. Avoid application when wind speeds are below 2 miles per hour 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 an application in low relative humidity, set application 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 apply this product during a temperature inversion as drift potential is high under these conditions. Temperature inversions restrict vertical air mixing, which causes small droplets to remain suspended 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

Apply this product only when the potential for drift to adjacent sensitive non-target areas (e.g., residential areas, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from a sensitive area).

State Specific Limitations on Aerial Application

LIMITATIONS ON AERIAL APPLICATION IN CALIFORNIA ONLY

DO NOT apply this product using aerial application equipment in residential areas.

AVOID DRIFT – DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION THAT FAVORS DRIFT. DRIFT OF THIS PRODUCT ONTO ANY VEGETATION TO WHICH APPLICATION WAS NOT INTENDED CAN CAUSE DAMAGE. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, USE PROPER AERIAL APPLICATION EQUIPMENT FITTED WITH APPROPRIATE NOZZLES AND MAINTAIN ADEQUATE BUFFERS.

Follow the directions below when making an aerial application near non-target crops, desirable annual vegetation, or desirable perennial vegetation after bud break and before total leaf drop.

1. Do not apply this product within 100 feet of all desirable vegetation or non-target crops.
2. If winds are blowing up to 5 miles per hour TOWARD desirable vegetation or non-target crops, do not apply this product within 500 feet of the desirable vegetation or crops.
3. If winds are blowing between 5 and 10 miles per hour TOWARD desirable vegetation or non-target crops, a buffer zone greater than 500 feet might be needed to protect the desirable vegetation or crops.
4. Do not apply this product using aerial application equipment when winds are blowing in excess of 10 miles per hour.
5. Do not apply this product using aerial application equipment when inversion conditions exist.

When tank-mixing this product with 2,4-D, only 2,4-D amine formulations may be applied in California using aerial application equipment. Tank mixtures of this product with 2,4-D amine formulations may be applied by air in California on fallow fields and in reduced tillage systems and for pasture renovation applications only.

This product, when tank-mixed with dicamba, may not be applied by air in California.

ADDITIONAL LIMITATIONS ON AERIAL APPLICATION IN FRESNO COUNTY, CALIFORNIA ONLY

Always read and follow the label directions and precautionary statements for all products used in the aerial application.

The following information applies only from February 15 through March 31 within the following boundaries of Fresno County, California:

North: Fresno County line
South: Fresno County line
East: State Highway 99
West: Fresno County line

Observe the following directions to minimize off-site movement during aerial application of this product. Minimization of off-site movement is the responsibility of the grower, Pest Control Advisor and aerial applicator.

Written Directions

Written directions MUST be submitted by or on behalf of the applicator to the Fresno County Agricultural Commissioner 24 hours prior to the application. These written directions MUST state the proximity of surrounding crops and that conditions of each manufacturer's product label and this label have been satisfied.

Aerial Applicator Training and Equipment

Aerial application of this product is limited to pilots who have successfully completed a Fresno County Agricultural Commissioner and California Department of Pesticide Regulation approved training program for aerial application of herbicides. All aircraft must be inspected, critiqued in flight and certified at a Fresno County Agricultural Commissioner approved fly-in. Test and calibrate spray equipment at intervals sufficient to ensure that proper rates of herbicides and adjuvants are being applied during commercial use. Applicator must document such calibrations and testing. Demonstration of performance at Fresno County Agricultural Commissioner approved fly-ins constitutes such documentation, or other written records showing calculations and measurements of flight and spray parameters acceptable to the Fresno County Agricultural Commissioner.

Applications at Night – Do not apply this product by air earlier than 30 minutes prior to sunrise and/or later than 30 minutes after sunset without prior permission from the Fresno County Agricultural Commissioner.

For additional information on the proper aerial application of this product in Fresno County, call (800) 332-3111.

8.3 Ground Application Equipment

Apply this product at the appropriate rate as specified on this label in 3 to 40 gallons of water per acre when making a broadcast application using ground application equipment, unless otherwise directed on this label or on

separate supplemental labeling or Fact Sheets published for this product. As the weed density increases, increase the spray volume toward the upper end of this range to ensure complete coverage. Use nozzles that will avoid generating a fine mist. For enhanced results with ground application equipment, use flat-fan nozzles. Check spray pattern for uniform distribution of spray droplets.

8.4 Handheld Sprayers

When using a handheld sprayer, apply spray solutions of this product uniformly and completely to the foliage of target weeds using a coarse droplet spectrum and a spray-to-wet technique; do not spray to the point of runoff. For the appropriate concentration of this product in the spray solution and timing of application to control specific weeds, woody brush, trees and vines, refer to the "WEEDS CONTROLLED" section of this label.

For control of annual weeds, make application when weeds are small and prior to seedhead or bud formation. For control of perennial weeds, woody brush, trees and vines, make application after flowering and before fall color and leaf drop.

When making a low-volume directed spray application to annual and perennial weeds, woody brush, trees and vines using a handheld sprayer, ensure that at least 50 to 75 percent of the foliage or the top one-half of each unwanted plant is sprayed. If a straight stream nozzle is used, start the application at the top of the targeted plant and spray from top to bottom in a lateral zig-zag motion. To ensure uniform and complete coverage, spray both sides of large or tall woody brush, trees and vines, or when foliage is thick and dense, or there where are multiple sprouts. For enhanced results on woody brush, trees and vines, apply to actively growing vegetation after full leaf expansion and flowering, prior to fall color and leaf drop.

The following table summarizes various methods of foliar application using a backpack sprayer with a spray-to-wet or low-volume directed spray technique and high-volume sprayer application using handheld application equipment for control or partial control of herbaceous weeds, woody brush, trees and vines listed in the "WEEDS CONTROLLED" section of this label.

Method of Application	Spray Solution Concentration	Spray Volume
Handgun or Backpack Sprayer	0.5 to 1.5% by volume	Spray-to-wet technique
Low-Volume Directed Spray (Backpack)	4 to 8% by volume	15 to 25 gallons/acre
Modified High-Volume Spray	1.5 to 3% by volume	40 to 60 gallons/acre

Low-volume directed spray application with a backpack sprayer works best when applying to weeds and brush less than 10 feet tall. For taller weeds and brush, a high-volume handgun can be modified by reducing the nozzle size and spray pressure to produce a modified high-volume directed spray application.

8.5 Selective Application Equipment

Selective application equipment allows this product to be applied to weeds growing near a crop or other desirable vegetation without killing the desirable vegetation. Selective application equipment must be capable of preventing all contact of the herbicide solution with the desirable vegetation and operated without spray mist escape, leakage or dripping of the herbicide solution.

AVOID CONTACT OF THIS HERBICIDE WITH DESIRABLE VEGETATION. Contact of this product with desirable vegetation could result in unwanted plant damage or destruction. To the extent consistent with applicable law, such damage shall be the sole responsibility of the applicator.

This product may be diluted with water and applied using a recirculating sprayer, shielded sprayer, hooded sprayer, wiper applicator or sponge bar to weeds listed on this label growing in any aquatic or on any terrestrial non-food or non-feed crop site listed on this label, where feasible. This product may also be used with sprayers equipped with optical weed sensor technology.

Other selective equipment that may be used to deliver or apply this product are single and hollow stem injectors, tree injectors, wiper applicators for cut stem and cut stump applications, and spray or squirt bottles for cut stem, cut stump and frill applications to control large stem weeds, brush, trees and vines listed on this label.

Recirculating Sprayer

A recirculating sprayer directs the spray solution onto weeds growing above desirable vegetation, while spray solution that is not intercepted by weeds is collected and returned to the spray tank for reapplication. A recirculating sprayer may be used to apply spray solutions of this product to weeds listed on this label in any aquatic or on any terrestrial non-crop site described on this label.

Shielded and Hooded Sprayers

A shielded sprayer directs the herbicide solution to the target weeds while protecting desirable vegetation from coming into contact with the herbicide spray with an impervious material or shield. Use nozzles that provide uniform coverage within the application area. Keep shields properly adjusted to protect desirable vegetation.

A hooded sprayer is a type of shielded sprayer where the spray pattern is fully enclosed, including the top, sides, front and back, thereby shielding desirable vegetation from the spray solution.

This product may be diluted with water and, unless otherwise directed, mixed with a surfactant and applied using a shielded or hooded sprayer to weeds listed on this label growing in any aquatic or on any terrestrial non-crop site listed on this label, where feasible, and between rows of plants (row middles) in any cropping system listed on this label.

Properly adjust the hood to protect desirable vegetation. Ensure that the hood is capable of completely enclosing the spray pattern. If necessary when applying around crops grown on raised beds, extend the front and rear flaps of the hooded sprayer downward to reach the ground in deep furrows.

A hooded sprayer must be configured and operated in a manner that minimizes bouncing and avoids raising the hood up off the ground surface at any time. If the hood is raised, spray particles can escape and come into contact with the crop or other desirable vegetation, causing damage to or destruction of the desirable vegetation. Avoid operating this equipment on sloping or sloping terrain where the spray hood is likely to rise up off the ground surface.

Use hoods designed to minimize excessive dripping or runoff down the inside of the hood, such as a single, low pressure, low drift, flat-fan nozzle with an 80- to 95-degree spray angle positioned at the top center of the hood, with a spray volume of 20 to 30 gallons per acre.

The following procedures will help reduce the potential for injury to desirable vegetation when using a hooded sprayer:

- Operate the sprayer with the hood on the ground or skimming across the ground surface.
- Leave at least an 8-inch untreated strip over the drill row. (For example, if a crop row width is 38 inches, use a sprayer hood with a maximum width of 30 inches.)
- Operate at a ground speed no greater than 5 miles per hour to minimize bouncing of the hooded sprayer.
- Apply when wind speed is 10 miles per hour or less.
- Use low-drift nozzles that provide uniform coverage within the application area.

Injury to a crop or other desirable vegetation can occur when application is made to foliage of weeds that come into direct contact with the desirable vegetation. Do not apply this product when leaves of desirable vegetation are growing in direct contact with weeds. Droplets, mist, foam or splatter of the herbicide solution settling onto desirable vegetation can result in discoloration, stunting or destruction.

Wiper Applicator

A wiper applicator is a device that physically wipes this product or solutions of this product directly onto the weed or cut stump. Any handheld device that is capable of physically wiping this product or solutions of this product directly onto the target weed or stump, such as a paint brush, may be used.

A mechanical wiper applicator, such as a rope wick or sponge bar that can be driven through a field over the top of a crop or other desirable vegetation to control weeds that are taller than the desirable vegetation, must be designed, maintained and operated to prevent the herbicide solution from coming into contact with desirable vegetation.

Wiper applicators may be used over the top of food or feed crops ONLY if specifically permitted for use over that crop by this label or by separately published supplemental labeling for this product.

When using a mechanical wiper applicator, adjust the height of the applicator to ensure adequate contact with the weeds and so that the wiper contact point is at least 2 inches above the crop or desirable vegetation. Enhanced results can be obtained when more of the weed is exposed to the herbicide solution and weeds are a minimum of 6 inches above the desirable vegetation. Weeds that do not come into contact with the herbicide solution will not be affected. Poor contact can occur when weeds are growing in dense clumps, when operating in areas of severe weed infestation, or when weed height varies dramatically. In these situations, more than one application of this product might be necessary.

Operate wiper applicators at a ground speed of no greater than 5 miles per hour. Performance in areas of heavy weed infestation can be improved by reducing speed, which will provide more time for re-saturation of the wiper with the herbicide solution and more contact time of the wiper with the weed. Enhanced results with a wiper applicator can be obtained when two applications are made traveling in opposite directions in the field.

Keep wiper surfaces clean.

Droplets, mist, foam or splatter of the herbicide solution settling onto desirable vegetation can result in discoloration, stunting or destruction. Avoid leakage or dripping onto desirable vegetation. Be aware that on sloping ground the herbicide solution can migrate to one side, causing dripping on the lower end and drying of the wiper on the upper end of the applicator.

Do not apply this product using a wiper applicator when weeds are wet.

Add a nonionic surfactant to a concentration of 10 percent by volume of the total applicator solution (one gallon of surfactant for every 10 gallons of solution) for use in a wiper applicator. See the "MIXING" section of this label for more information on the use of surfactants.

For Rope Wick and Sponge Bar Applicators-apply solutions ranging from 33 to 75 percent of this product by volume in water.

For Panel Applicators-apply solutions ranging from 33 to 90 percent of this product by volume in water.

Mix only the amount of this product that will be used during a 1-day period, as reduced product performance can result from the use of solutions held in storage.

Clean wiper parts promptly after using this product by thoroughly flushing with water.

Single and Hollow Stem Injectors

Control of certain weeds listed in the "WEEDS CONTROLLED" section can be obtained by injecting this concentrated product or solutions of this product directly in or onto the target weed. Ensure that the handheld injector being used for this application is capable of accurately delivering the volume specified on the label. When making stem injections, the combined total use of this product must not exceed 8 quarts per acre per year. At 5 milliliters of concentrated (undiluted) product per stem, 8 quarts will treat approximately 1500 stems per acre per year. The number of stems that can be treated per acre will vary depending on the injection volume and the concentration of this product in the application solution.

8.6 Injection Systems

This product may be used in aerial and ground injection spray systems as a liquid concentrate or diluted prior to injecting into the spray stream. Do not mix this concentrated product with the undiluted concentrate of other products when using injection systems, unless otherwise directed. A non-ionic surfactant concentration of 0.5% or more in the spray stream is required for use of this product in injection systems.

8.7 Controlled Droplet Applicator (CDA)

The amount of this product applied per acre using a controlled droplet applicator (CDA) must be no less than the rate specified on this label for application using conventional broadcast application equipment.

A controlled droplet applicator produces a spray pattern that is not easily visible. Use extreme care to avoid spray or drift from contacting the foliage or any other tissue of desirable vegetation, as plant damage or destruction could result.

9.0 AQUATIC AND TERRESTRIAL USE SITES

This product may be used according to the directions for use described on this label to control weeds, woody brush, trees and vines listed on this label growing in aquatic environments and on any terrestrial site described on this label.

9.1 Aquatic Sites

This product may be used to control emerged weeds, brush, trees and vines in all flowing, non-flowing or transient bodies of fresh and brackish surface water. These bodies of water include lakes, rivers, streams, ponds, estuaries, rice levees, seeps, irrigation and drainage ditches, canals, reservoirs, wetlands and wastewater treatment facilities. This product may also be used to control weeds in intertidal areas below the mean high-water mark and on terrestrial sites where bodies of water may be present and a buffer that will ensure no overspray of the water cannot be maintained.

When applying spray solutions of this product in or near aquatic sites, a nonionic surfactant that is labeled for use with herbicides and approved for direct application to bodies of water must be used. See the "MIXING" section of this label for more information on the use of surfactants with this product.

Before using this product for aquatic weed control or for terrestrial weed control near aquatic sites, read the following information carefully.

- This product does not control plants that are completely submerged or have a majority of their foliage under water.
- There is no restriction on the use of water for irrigation, recreation or domestic purposes following direct application of this product to emerged aquatic plants.
- Consult your local State Agency with primary responsibility for regulating pesticides, State fish and wildlife agency and/or water control authority before applying this product to vegetation growing in public waters to determine if a permit is required.
- Do not apply this product directly to water within 0.5 mile upstream of an active potable water intake in flowing water (i.e., river, stream, etc.) or within 0.5 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 0.5 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 the application. This restriction does NOT apply to intermittent inadvertent overspray of water on terrestrial use sites.
- To achieve maximum weed control in dry ditches, apply this product within 1 day after water drawdown to ensure application to actively growing weeds and allow a minimum of 7 days after application before reintroduction of water
- Floating mats of vegetation could require more than one application of this product for control. Avoid washing this product off of foliage after application by boat backwash or rainfall within 4 hours of application. Wait a minimum of 24 hours before re-applying this product to the same vegetation.
- Application of this product to moving bodies of water must be made while traveling upstream to prevent concentration of this herbicide in the water.

- When making a bankside application, do not overlap more than 1 foot into open water.
- Do not apply this product to bodies of water where emerged weeds do not exist.
- If applying this product to more than 20 percent of the total area of a body of water, do not apply more than 3.75 quarts per acre in any single broadcast application. If applying to less than 20 percent of the total area of a body of water, any rate listed on this label may be applied. This single application rate restriction does not apply to stream crossings in utility rights-of-way.
- When emerged weed infestations cover the total surface area of an improved waterbody, apply this product to the emerged vegetation in strips to help avoid oxygen depletion in the water due to decaying vegetation. Oxygen depletion in the water can result in increased fish mortality.

TANK MIXTURES: This product may be applied in a tank mixture with one or more of the following products for enhanced control of aquatic weeds, woody brush, trees and vines in aquatic sites, provided that the product used is labeled for aquatic use. Refer to the individual label of all products used in the tank mixture for approved uses and application rates. Always read and follow label directions for each product in the mix.

Clipper; Garlon 3A Specialty; Habitat; 2,4-D amine; imazapyr; flumioxazin; triclopyr

9.2 Terrestrial Sites

This product may be used according to the directions for use described on this label to control weeds, woody brush, trees and vines listed on this label on any terrestrial site described on this label.

This product may be used to control weeds, woody brush, trees and vines on maintained landscapes, on improved and unimproved land, on lawns and turf and around ornaments on industrial, commercial and residential sites, including airports, apartment complexes, chaparrals, ditch banks, driveways, dry ditches, dry canals, farmsteads, fencerows, forestry sites, golf courses, greenhouses, lumber yards, manufacturing sites, municipal sites, natural areas, nurseries, office complexes, ornamental beds, parks, parking areas, pastures, petroleum tank farms, pumping installations, railroads, rangeland, recreational areas, residential areas, roadsides, schools, shadehouses, sod and turfgrass seed farms, sports complexes, storage areas, substations, utility rights-of-way, utility sites, warehouse areas, wildlife food plots and wildlife management areas.

This product may be used for non-selective control of unwanted vegetation on any site listed on this label for trim-and-edge application around objects, including around building foundations, equipment storage areas and trees, and along and in fences, and to eliminate unwanted weeds growing in and around established shrub beds and ornamental plantings. This product may also be used for complete elimination of vegetation from a terrestrial site prior to planting ornamentals, flowers, or turfgrass (sod or seed), and prior to land development, including prior to beginning construction projects or the laying of asphalt or other road material. Application of this product may be repeated, as needed, to maintain bare ground, up to a total application of 8 quarts per acre per year.

This product may be used for establishment and maintenance of fuel breaks, for establishing fire perimeters and black lines, along fire roads and to facilitate prescribed burning practices on any site described on this label.

This product may also be used for weed control or growth regulation on Christmas tree farms, citrus orchards, farmsteads, production nurseries, sugarcane fields, sod farms and turfgrass seed farms.

This product requires the addition of a nonionic surfactant to the spray solution labeled for herbicide application. See the "MIXING" section of this label for more information on the use of surfactants with this product.

Unless otherwise directed, application of this product may be made according to the directions for use in the sections that follow on any of these sites using any method of application described on this label to control any weeds, woody brush, trees and vines listed in the "WEEDS CONTROLLED" section of this label.

10.0 ADDITIONAL SITE MANAGEMENT INFORMATION

The following sections contain additional use information specifically related to certain use sites. Unless otherwise directed, any application of this product described in the "WEEDS CONTROLLED" section or any other section of this label may be made on the use sites described in the sections that follow, where applicable, using any method of application described on this label that is appropriate.

10.1 Forestry, Hardwood and Christmas Tree Site Management

This product may be used for control or partial control of woody brush, trees and herbaceous weeds on any tree site, including forestry settings, Christmas tree plantations, and silvicultural and production nursery sites, using any method of application listed on this label. See the "WEEDS CONTROLLED" section of this label for application rates and specific use directions.

Unless otherwise directed, this product requires a nonionic surfactant that is labeled for the intended use on the site of application to be added to the spray mixture. Use of this product without a surfactant will result in reduced performance. See the "MIXING" section of this label for more information on the use of surfactants with this product.

IMPORTANT: SOME SURFACTANTS CAN CAUSE TREE INJURY WHEN DIRECTLY APPLIED TO SOME SPECIES. READ AND FULLY UNDERSTAND ALL APPROVED USES, PRECAUTIONS AND LIMITATIONS OF THE SURFACTANT BEFORE USING.

Weed Management, Site Preparation

This product may be used to control or partially control undesirable woody brush, trees, vines and herbaceous weeds listed on this label for preparing sites prior to planting any tree species, including Christmas trees, eucalyptus trees and hybrid tree cultivars, and for controlling weeds around established trees, for the release of conifer and hardwood trees, establishing wildlife openings and maintaining roads on any tree site.

TANK MIXTURES: This product may be applied in a tank-mix with the products listed in this section to increase the spectrum of vegetation controlled. Any application rate of this product listed on this label may be used in a tank-mix with the following products for tree site management, including site preparation, provided that the product is labeled for the use on the site of application and prior to planting the desired species. Refer to the individual label of all products used in the tank mixture for approved uses and application rates. Read and follow all directions for use and precautions for each product used, including planting interval restrictions, if any. Use this product according to the most restrictive precautionary statements of any product in the mix.

Arsenal; Arsenal Herbicide Applicators Concentrate; Chopper; Chopper GEN2; Escort XP; Forestry Garlon 4 Specialty; Forestry Garlon XRT Specialty; Garlon 3A Specialty; Garlon 4 Specialty; Garlon 4 Ultra Specialty; Landmark; Landmark XP; Oust Extra; Oust XP; imazapyr; metsulfuron methyl; sulfometuron methyl; triclopyr

For control of herbaceous weeds, apply these tank-mix products at the lower end of the application rate range specified on the product label. For control or partial control of dense stands or for hard-to-control woody brush, trees and vines, apply these products at a rate or spray solution concentration towards the higher end of the given range.

Conifer Release, Mid-Rotation Conifer Release, Hardwood Release, Timber Stand Improvement

This product may be applied as a directed spray using a handheld sprayer or using any selective application equipment described on this label to control woody and herbaceous weeds and other undesirable understory vegetation between the tree crop canopy in conifer plantations, hardwood sites, Christmas tree plantations and silvicultural and ornamental nurseries to facilitate the release and growth of conifer and hardwood trees.

This product may also be applied using ground broadcast equipment or as a directed spray application for mid-rotation release under the canopy of pines, other conifers and hardwoods.

PRECAUTIONS: Avoid contact of spray drift, mist or drips with foliage, green bark or non-woody surface roots of desirable plant species. Use application

techniques that prevent or minimize contact of this product with foliage of desired trees or other plants through direct contact or off-target spray movement.

Conifer Release – Broadcast Application

This product may be broadly applied over the top of conifer tree species listed in this section after formation of final conifer resting buds in the fall or prior to initial bud swelling in the spring for control, partial control or suppression of herbaceous weeds and hardwoods listed in the “WEEDS CONTROLLED” section of this label to facilitate the release of these tree species in a forestry, plantation or nursery setting. Unless otherwise directed, make this application only where conifers have been established for a minimum of one growing season.

PRECAUTIONS: Conifer injury can occur when this product is applied at rates higher than prescribed on this label, where spray applications overlap, if application is made when conifers are actively growing, or when they are growing under stress from drought, flood, improper planting or insect, animal or disease damage.

Conifer Release Outside the Southeastern United States

For release of the following conifer species growing for a minimum of one growing season in most areas outside the southeastern United States, apply 24 to 48 fluid ounces of this product per acre as a broadcast application over the top of the conifer trees.

- Douglas Fir
- Fir species
- Hemlock
- Pines*
- California redwood
- Spruce

* Includes all species except loblolly pine, longleaf pine, shortleaf pine or slash pine.

Apply 24 to 40 fluid ounces of this product for release of Douglas fir, pine and spruce that have been established for only one growing season (except in California).

For release of spruce (*Picea spp.*) in Maine, Michigan, Minnesota, New Hampshire and Wisconsin, up to 2.25 quarts of this product may be applied after formation of final resting buds in the fall for control of woody brush and tree species.

PRECAUTIONS: Ensure that the conifers are well hardened off before application of this product. Some nonionic surfactants can cause tree injury when broadly applied over the top of hemlock and California redwood and in mixed conifer stands. Test the nonionic surfactant to be used for tree safety before using.

Conifer Release in the Southeastern United States

For release of the following conifer species established for more than one growing season in the southeastern United States, apply 36 to 60 fluid ounces of this product per acre in the fall as a broadcast application over the top of the trees. For release of these species after only one growing season, apply only 24 fluid ounces of this product per acre.

- Eastern white pine
- Loblolly pine
- Longleaf pine
- Shortleaf pine
- Slash pine
- Virginia pine

TANK MIXTURES: This product may be applied for conifer release in a tank-mix with the following products to provide a broader spectrum of postemergence weed control and for residual control of weeds listed on the label of those products. Only apply these tank mixtures over the top of conifer species that are approved for this use for all products in the mix. Refer to the individual product labels for approved uses and application rates. Read and follow all directions for use and precautions for each product used. Use this product according to the most restrictive precautionary statements of any product in the mixture.

Arsenal; Arsenal Herbicide Applicators Concentrate; Oust Extra; Oust XP; atrazine; imazapyr; metsulfuron methyl; sulfometuron methyl

For release of Douglas fir established for a minimum of one growing season prior to bud swell in early spring, apply 24 fluid ounces of this product in a tank-mix with an appropriate rate of atrazine. Do not add surfactant for this application.

For herbaceous release of loblolly pine, Virginia pine and longleaf pine in the spring and early summer, apply 12 to 18 fluid ounces of this product per acre in a tank-mix with an appropriate rate of Oust Extra or Oust XP.

Late-Summer and Fall after Resting Bud Formation

For release of jack pine, white pine and white spruce, apply 24 to 48 fluid ounces of this product per acre in a tank-mix with an appropriate rate of Oust Extra or Oust XP that will not harm these conifer species.

For release of Douglas fir, apply 24 to 36 fluid ounces of this product per acre in a tank-mix with an appropriate rate of Arsenal or Arsenal Herbicide Applicators Concentrate.

For release of balsam fir and red spruce, apply 48 fluid ounces of this product per acre in a tank-mix with an appropriate rate of Arsenal or Arsenal Herbicide Applicators Concentrate.

10.2 Native and Wildlife Habitat Management

This product may be used to control exotic and other undesirable vegetation in wildlife habitat and natural areas, including riparian and estuarine areas, rangeland, and wildlife refuges. Application may be made to allow recovery of native plant species or prior to planting desirable native species, and for similar broad-spectrum vegetation control. Spot treatment, cut stump, cut stem, stem injection, wiper applicator and all other methods of application listed on this label may be used to selectively remove unwanted plants for habitat management and enhancement.

This product may also be used to eliminate annual and perennial weeds prior to planting wildlife food plots. Any wildlife food species may be planted after applying this product or native species may be allowed to repopulate the area naturally. If tillage is needed to prepare a seedbed, wait a minimum of 7 days after application before tilling to allow translocation of this product into underground plant parts.

10.3 Ornamental and Production Nursery Management

All uses of this product described on this label may be used in a plant nursery setting using any method of application described.

This product may be used to clear an area of unwanted vegetation prior to planting any ornamental plant, tree, shrub or other plants.

This product may also be used to control weeds growing around established woody ornamental species, such as arborvitae, azalea, boxwood, crabapple, eucalyptus, euonymus, fir, Douglas fir, jojoba, hollies, lilac, magnolia, maple, oak, poplar, privet, pine, spruce and yew. This product may also be used to trim and edge around potted plants and other objects in a plant nursery.

PRECAUTIONS: Protect desirable plants from the spray solution using shields or coverings made of waterproof material. Take care to avoid contact of spray, drift or mist with foliage, green stems or immature bark of established ornamental species.

Greenhouse/Shadehouse

This product may be used to control weeds growing in and around greenhouses and shadehouses.

RESTRICTIONS: Desirable vegetation must not be present during application in a greenhouse. Turn air circulation fans off before applying this product inside a greenhouse or shadehouse and leave them off until the application solution has dried.

10.4 Commercial, Residential and Recreational Area Management

All applications of this product described on this label may be used on commercial, residential and recreational areas, including parks, schools and athletic fields, using any method of application described on this label, including spot treatment of unwanted vegetation, trim-and-edge application around trees, fences, walking paths, buildings, sidewalks, nature trails and other objects in these areas, to eliminate unwanted weeds growing in established shrub and ornamental beds, for turf management and renovation, and to eliminate vegetation from a site prior to development, including prior

to planting an area to ornamentals, flowers or turfgrass (sod or seed), or beginning construction projects.

10.5 Pasture Management

The use of this product in pastures includes use on bahiagrass, bermudagrass, bluegrass, brome, fescue, guineagrass, kikuygrass, orchardgrass, pangola grass, ryegrass, Timothy, and wheatgrass.

Preplant, Preemergence, Pasture Renovation

This product may be applied prior to planting or emergence of forage or perennial grasses. Refer to the “WEEDS CONTROLLED” section of this label for application rates of this product for control of specific weeds.

RESTRICTIONS: If the total application rate of this product is 2.25 quarts per acre or less, no waiting period between application and feeding or livestock grazing is required. If the rate is greater than 2.25 quarts per acre, remove domestic livestock before application and wait a minimum of 8 weeks after application before grazing or harvesting.

Spot Treatment, Wiper Applicator

This product may be applied in pastures as a spot treatment or over the top of desirable grasses using a wiper applicator to control taller growing weeds. For enhanced weed control, remove domestic livestock before application to allow for sufficient plant growth and wait a minimum of 7 days after application before grazing livestock or harvesting for feed. See additional instructions on the use of wiper applicators in the “APPLICATION EQUIPMENT AND TECHNIQUES” section of this label.

RESTRICTIONS: For spot treatment or use with a wiper applicator at rates of 2.25 quarts per acre or less, this product may be applied over the entire pasture or any portion of it. At rates greater than 2.25 quarts per acre, this product may be applied over no more than 10 percent of the total pasture at any one time. Application may be repeated in the same area at 30-day intervals.

Weed Suppression in Dormant Pastures

This product may be applied in dormant pastures to suppress competitive growth and seed production of annual weeds and other undesirable vegetation. Apply 9 to 12 fluid ounces of this product per acre using broadcast application equipment on pastures in late-fall after desirable perennial grasses have reached dormancy or in late-winter before desirable perennial grasses break dormancy and initiate green growth.

PRECAUTIONS: Higher application rates may be used for hard-to-control weeds; however, higher rates can cause stand reduction. Some stunting of perennial grasses can occur if broadcast application is made when they are not dormant.

RESTRICTIONS: No waiting period is required between application and grazing or harvesting for feed. Do not apply more than 2.25 quarts of this product per acre per year onto pasture grasses except for renovation. If reseeding is needed due to severe stand reduction, no waiting period is required after application of this product before seeding the pasture grasses listed at the beginning of this section; for all other pasture grasses, wait a minimum of 30 days after application before seeding.

10.6 Railroad Management

All uses of this product described in the “WEEDS CONTROLLED” or any other section of this label may be used on railroad sites using any method of application described.

This product requires a nonionic surfactant that is labeled for the intended use on the site of application to be added to the spray mixture. If application is to be made where aquatic sites might be directly sprayed or inadvertently oversprayed, the surfactant must be labeled for aquatic use. Use of this product without a surfactant will result in reduced performance. See the “MIXING” section of this label for more information on the use of surfactants with this product.

Application of this product along railroad rights-of-way may be made in up to 80 gallons of spray solution per acre.

Bare Ground, Ballast and Shoulders, Crossings, Spot Treatment

This product may be used to maintain bare ground on railroad ballast and shoulders and reduce the need for mowing and mechanical brush removal along railroad rights-of-way. Application of this product may be repeated as weeds continue to emerge in order to maintain bare ground, up to a maximum total application rate of 8 quarts of this product per acre per year.

TANK MIXTURES: This product may be applied in a tank mixture with the following products for enhanced control of woody brush and trees for bare ground, ballast and shoulder, crossing and spot treatment applications, and other brush, tree and vine control on railroad sites, provided that the product used is labeled for these applications. Not all tank-mix products listed are labeled for aquatic use. Refer to the individual label of all products used in the tank mixture for approved uses and application rates. Always read and follow label directions for each product in the mix.

Arsenal; Arsenal Herbicide Applicators Concentrate; Chopper; Chopper Gen2; Escort XP; Forestry Garlon 4 Specialty; Forestry Garlon XRT Specialty; Garlon 3A Specialty; Garlon 4 Specialty; Garlon 4 Ultra Specialty; Habitat; Hyvar X-L; Krovat I DF; Oust Extra; Oust XP; Outrider*; Princep 4L; Princep Cavalry 90; Princep Liquid; Sahara DG; Scythe; Stalker; Spike 20P Specialty; Spike 80DF Specialty; telar XP; Transline Specialty; Velpar DF CU; Velpar DF VU; Velpar L; Velpar L CU; Velpar L VU; Vastlan Specialty; 2,4-D; atrazine; bromacil; chloirsulfuron; clopyralid; dicamba; diuron; fosamine; hexazinone; imazapyr; metsulfuron methyl; pelargonic acid; simazine; sulfometuron methyl; sulfosulfuron; tebutiuron; triclopyr

Brush, Tree and Vine Control

This product may be used to control woody brush, trees and vines along railroad rights-of-way. Apply to 3 to 8 quarts of this product per acre in up to 80 gallons of spray solution containing 0.5% or more by volume of a nonionic surfactant as a broadcast application using either a boom or boomless sprayer. Apply a 0.75- to 1.5-percent solution of this product when using high-volume application equipment with a spray-to-wet technique, or a 4- to 8-percent solution when using low-volume directed spray for spot treatment.

TANK MIXTURES: This product may be applied in a tank-mix with one or more of the following products for enhanced control of woody brush, trees and vines along railroad rights-of-way, provided that the product is labeled for use on these sites. Refer to the individual product label for approved sites and application rates.

Arsenal; Arsenal Herbicide Applicator's Concentrate; Chopper; Chopper Gen2; Escort XP; Forestry Garlon 4 Specialty; Forestry Garlon XRT Specialty; Garlon 3A Specialty; Garlon 4 Specialty; Garlon 4 Ultra Specialty; Habitat; Krenite S Brush Control Agent; Stalker; Telar XP; Tordon 101 Mixture Specialty; Tordon 22K Specialty; Tordon K Herbicide Specialty; Transline Specialty; Vanquish; Velpar DF CU; Velpar DF VU; Velpar L; Velpar L CU; Velpar L VU; Vastlan Specialty; chloirsulfuron; clopyralid; dicamba; fosamine; hexazinone; imazapyr; metsulfuron methyl; picloram; triclopyr

Weed Control in Dormant and Actively Growing Bermudagrass

This product may be used to control or partially control many annual and perennial weeds in dormant and actively growing bermudagrass along railroad rights-of-way. See the "WEEDS CONTROLLED" section of this label for directions for use of this product for weed control in grasses.

10.7 Rangeland Management

This product will control or suppress many annual weeds growing on perennial cool- and warm-season grass rangeland. Slight discoloration of the desirable grasses could occur, but will re-green and resume growing under moist soil conditions as effects of this product wear off.

Preventing seed production is critical to the control of invasive annual grassy weeds on rangeland. Yearly application of this product to eliminate invasive annual weeds before they produce seed will help eliminate viable weed seeds from the soil. Delay grazing of the area after application of this product to allow desirable perennials to grow, flower and re-seed the area.

Bromus Control: A broadcast application of 9 to 12 fluid ounces of this product per acre will control or suppress downy brome (*Bromus tectorum*), Japanese brome (*Bromus japonicus*), soft chess (*Bromus mollis*), cheatgrass (*Bromus secalinus*), cereal rye and jointed goatgrass on rangeland. For

enhanced results, apply this product when most brome plants are in early-flower and before the plants, including seedheads, turn color. Allow for secondary weed flushes to occur after spring rains to further deplete the seed reserve in the soil and encourage perennial grass conversion on weedy sites. Apply this product in the fall in areas where spring moisture is normally limited and fall germination allows for good weed growth and weed seed depletion.

Medusahead Control: To control or suppress medusahead, apply 12 fluid ounces of this product per acre at the 3-leaf stage. Delaying application beyond this stage will result in reduced or unacceptable control. Controlled burning prior to application of this product will eliminate the thatch layer produced by slowly decaying culms. Allow new weed growth to occur before applying this product after a burn. Repeat this application annually to eliminate medusahead seeds in the soil and allow desirable perennial grasses to repopulate the area.

RESTRICTIONS: Do not apply more than 2.25 quarts of this product per acre per year on rangeland. Do not use ammonium sulfate when applying this product on rangeland grasses. No waiting period between application of this product and feeding or livestock grazing is required.

10.8 Roadside Management

All uses of this product described on this label may be used for weed management along roadways, including weed control in dormant and active bermudagrass and bahiagrass, weed control along shoulders and under and around guardrails, signposts and other objects along the road, using any method of application described on this label. If applying this product in areas where the spray solution could inadvertently overspray a body of surface water, a non-ionic surfactant approved for aquatic use must be used. See the "MIXING" section of this label for more information on the use of surfactants with this product.

TANK MIXTURES: This product may be tank-mixed with the following products for shoulder, guardrail, spot treatment and maintaining bare ground applications, provided that the product used is labeled for use on these sites. Not all tank-mix products listed are labeled for aquatic use. Refer to the individual product labels for approved uses and application rates.

AAtrex 4L; AAtrex Nine-O; Banvel; Barricade 65WG; Chopper; Chopper Gen2; Crossbow; Direx 4L; Escort XP; Endurance; Formula 40; Gallery 75 Dry Flowable Specialty; Gallery SC; Garlon 4; Garlon XRT; Hyvar X; Karmex DF; Krenite S Brush Control Agent; Krovat I DF; Landmark; Landmark XP; Oust Extra; Oust XP; Outrider*; Pendulum 3.3 EC; Pendulum AquaCap; Pendimax 3.3; Plateau; Poast; Poast Plus; Princep 4L; Ronstar 50 WSP; Ronstar Flo; Ronstar G; Sahara DG; Surfiant AS Specialty; Surfiant Flex; Surfiant Flex T&O; Surfiant Pro; Surfiant XL 2G; Telar XP; Tordon K; Vanquish; Vastlan Specialty; Velpar DF CU; Velpar DF VU; Velpar L; Velpar L CU; Velpar L VU; Weedar 64; 2,4-D; atrazine; bromacil; chloirsulfuron; clopyralid; dicamba; diuron; fosamine; hexazinone; imazapyr; imazapyr; metsulfuron methyl; oxyzinol; oxadiazon; pendimethalin; picloram; prodiamine; simazine; sulfometuron; sulfosulfuron; triclopyr

10.9 Utility Management

This product may be used along electrical power, pipeline and telephone rights-of-way, and on all sites associated with these utility rights-of-way, including substations, access roads and railroads, and along similar rights-of-way that run in conjunction with utilities, for spot treatment of unwanted vegetation, side-trimming, trim-and-edge application around objects, weed control prior to planting a utility site to ornamentals, flowers or turfgrasses (sod or seed), turf management, to eliminate unwanted weeds growing in established shrub or ornamental beds, to prepare or establishing wildlife openings and for eliminating vegetation prior to beginning construction projects. Application of this product may be repeated as needed to maintain bare ground as weeds continue to emerge, up to a maximum application rate of 8 quarts per acre per year.

TANK MIXTURES: This product may be tank-mixed with the following products for use on utility sites, provided that the product is labeled for use on these sites. Not all tank-mix products listed are labeled for aquatic use. Refer to the individual product label for approved uses and application rates. For control of herbaceous weeds, use a lower application rate or spray solution

concentration within the given ranges for these tank-mix products and increase the rate or concentration toward the higher end of the ranges for control of dense stands or hard-to-control woody brush, trees and vines.

AAtrex 4L; AAtrex Nine-O; Arsenal Herbicide Applicators Concentrate; Endurance; Escort XP; Forestry Garlon 4 Specialty; Forestry Garlon XLT Specialty; Garlon 3A Specialty; Garlon 4 Specialty; Garlon 4 Ultra Specialty; Hyvar XL; Krenite S Brush Control Agent; Krovat I DF; Oust Extra; Oust XP; Outrider*; Plateau; Sahara DG; Surfiant AS Agricultural; Surfiant AS Specialty; Surfiant Flex; Surfiant Flex T&O; Surfiant XL 2G; Telar XP; Transline Specialty; Vanquish; Velpar DF CU; Velpar DF VU; Velpar L; Velpar L CU; Velpar L VU; Vastlan Specialty; Weedar 64; 2,4-D; atrazine; bromacil; chloirsulfuron; clopyralid; dicamba; diuron; fosamine; hexazinone; imazapyr; imazapyr; metsulfuron methyl; oxyzinol; pendimethalin; prodiamine; simazine; sulfometuron methyl; sulfosulfuron; triclopyr

Ensure that the Garlon product is thoroughly mixed with water according to label directions before adding this product to the spray mixture. Maintain continuous agitation when adding this product in order to avoid tank-mix compatibility problems.

For enhanced results with side-trimming, apply this product in a tank-mix with one of the Garlon products listed above.

11.0 CROP USES

11.1 Tree, Vine and Shrub Crops

THIS SECTION PROVIDES DIRECTIONS FOR USE THAT APPLY TO ALL TREE, VINE AND SHRUB CROPS LISTED IN THE FOLLOWING SECTIONS. SEE THE INDIVIDUAL CROP SECTIONS FOR SPECIFIC DIRECTIONS FOR USE, PREHARVEST INTERVALS, PRECAUTIONS AND RESTRICTIONS.

TYPES OF APPLICATION: Preplant (site preparation); Broadcast Spray, Selective Equipment (shielded sprayer, wiper applicator); Directed Spray and Spot Treatment in Middles (between rows of trees, vines or bushes) and Strips (within rows of trees, vines or bushes); Site Weed Control; Perennial Grass Suppression; Cut Stump Application

USE INSTRUCTIONS: Unless specifically prohibited in the individual crop sections that follow, this product may be applied using a boom sprayer, controlled droplet applicator (CDA), shielded sprayer, wiper applicator, handheld or backpack sprayer, lance or orchard gun, in middles (between rows of trees, vines or bushes) and strips (within rows of trees, vines or bushes), for weed control or perennial grass suppression in established tree fruit and nut groves, orchards and vineyards. It may also be used for site preparation prior to planting or transplanting these crops.

Apply 12 fluid ounces to 4 quarts of this product per acre as directed in the "WEEDS CONTROLLED" section of this label. Use a higher application rate within a given range when weeds are stressed, growing in dense populations or greater than 12 inches tall. Application may be repeated as needed up to a maximum of 8 quarts of this product per acre per year. See the "PRODUCT INFORMATION" section of this label for more information on Maximum Application Rates.

PRECAUTIONS: Use extreme care to avoid contact of this herbicide solution, spray, drift or mist with foliage or green bark of trunk, branches, suckers, fruit or other parts of desirable trees, canes and vines. Avoid application when recent pruning wounds or other mechanical injury have occurred. Contact of this product with other than matured brown bark could result in serious crop damage or destruction. Only shielded or directed sprayers may be used in crops where potential for crop contact is high, and then only where there is sufficient clearance. For application in strips (within rows of trees), only selective equipment (directed sprayer, hooded sprayer, shielded sprayer or wiper applicator) may be used in order to minimize the potential for overspray or drift of this product onto the crop. For berry crops, hooded sprayers must be fully enclosed including top, sides, front and back. Only wiper applicators or shielded sprayers capable of preventing all contact of this product with the crop may be used. See additional use instructions and precautions in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

RESTRICTIONS: Allow a minimum of 3 days between application of this product and transplanting.

Middles (between rows)

USE INSTRUCTIONS: This product will control or suppress annual and perennial weeds and ground covers growing between rows of tree, vine and shrub crops listed on this label. If weeds are under drought stress, irrigate prior to application. Reduced weed control could result if weeds have been recently mowed at the time of application.

TANK MIXTURES: A tank mixture of this product with Goal 2XL may be applied for annual weed control between rows (middles) of a variety of tree, vine and shrub crops when weeds are stressed or growing in dense populations. Application of 12 to 24 fluid ounces of this product per acre plus an appropriate rate of Goal 2XL will control annual weeds with a maximum height or length of 6 inches, including crabgrass, common groundsel, junglerice, common lambsquarters, redroot pigweed, London rocket, common ryegrass, shepherd's-purse, annual sowthistle, filaree (suppression), horseweed/marestail, stinging nettle and common purslane (suppression). This tank-mix will also control common cheeseweed (malva) or hairy fleabane with a maximum height or length of 3 inches.

This product may also be applied to row middles in tank mixtures with the following products.

2,4-D; bromacil; clethodim; diuron; fluzifop-P-butyl; flumioxazin; glufosinate-ammonium; indaziflam; napropamide; norflurazon; oryzalin; oxyfluorfen; pendimethalin; penoxsulam; pyraflufen ethyl; rimsulfuron; saflufenacil; sethoxydim; simazine; thiazopyr

Alion; Chateau Herbicide SW; Devrinol 2-XT; Devrinol 50-DF; Devrinol 50-DF Ornamental; Devrinol DF-XT; Devrinol DF-XT Ornamental; Direx 4L; Dri-Clean; Fusilade II Turf & Ornamental; Fusilade DX; Goal 2XL; Goalfender; Karmex DF; Matrix FNV; Matrix SG; Orchard Master Broadleaf; Orchard Master CA; Pindar GF; Poast; Poast Plus; Prowl 3.3 EC; Prowl H2O; Princep 4L; Princep Caliber 90; Princep Liquid; Rely 280; Select; Select 2 EC; Select Max Herbicide with Inside Technology; Simazine 4L; Simazine 4L Flowable; Simazine 90DF; Simazine 90 WDG; Sim-Trol 4L; Sim-Trol DF; Solicam DF; Surfiant AS Agricultural; Surfiant AS Specialty; Surfiant Flex; Surfiant Flex T&O; Surfiant XL 2G; Treevix Powered by Kiox; Venue; Visor Broadcast

Ensure that the product used is labeled for application within the crop being grown. Read and follow label directions for all products in the tank mixture.

Strips (within rows)

TANK MIXTURES: This product may be applied within rows of tree, vine and shrub crops in tank mixtures with the following products.

2,4-D; bromacil; clethodim; diuron; fluzifop-P-butyl; flumioxazin; glufosinate-ammonium; indaziflam; napropamide; norflurazon; oryzalin; oxyfluorfen; pendimethalin; penoxsulam; pyraflufen ethyl; rimsulfuron; saflufenacil; sethoxydim; simazine; thiazopyr

Alion; Chateau Herbicide SW; Devrinol 2-XT; Devrinol 50-DF; Devrinol 50-DF Ornamental; Devrinol DF-XT; Devrinol DF-XT Ornamental; Direx 4L; Dri-Clean; Fusilade II Turf & Ornamental Fusilade DX; Goal 2XL; Goalfender; Karmex DF; Matrix FNV; Matrix SG; Orchard Master Broadleaf; Orchard Master CA; Pindar GF; Poast; Poast Plus; Prowl 3.3 EC; Prowl H2O; Princep 4L; Princep Caliber 90; Princep Liquid; Rely 280; Select; Select 2 EC; Select Max Herbicide with Inside Technology; Simazine 4L; Simazine 4L Flowable; Simazine 90DF; Simazine 90 WDG; Sim-Trol 4L; Sim-Trol DF; Solicam DF; Surfiant AS Agricultural; Surfiant AS Specialty; Surfiant Flex; Surfiant Flex T&O; Surfiant XL 2G; Treevix Powered by Kiox; Venue; Visor Broadcast

Ensure that the product used is labeled for application within the crop being grown. Read and follow label directions for all products in the tank mixture.

RESTRICTIONS: Do not apply these tank mixtures in Puerto Rico.

Perennial Grass Suppression

This product will suppress perennial grasses such as bahiagrass, bermudagrass, tall fescue, orchardgrass, Kentucky bluegrass and quackgrass that are grown as ground covers in tree, vine and shrub crops.

For suppression of tall fescue, fine fescue, orchardgrass and quackgrass, apply 6 fluid ounces of this product in 10 to 20 gallons of water per acre.

For suppression of Kentucky bluegrass covers, apply 4.5 fluid ounces of this product per acre. Do not add ammonium sulfate to the spray mix.

For enhanced results, mow cool-season grass covers in the spring to even their height and then apply this product 3 to 4 days after mowing.

For suppression of vegetative growth and seedhead inhibition of bahiagrass for approximately 45 days, apply 4.5 fluid ounces of this product in 10 to 25 gallons of water per acre 1 to 2 weeks after full green-up or after mowing to a uniform height of 3 to 4 inches prior to seedhead emergence. For suppression for up to 120 days, apply 3 fluid ounces of this product per acre, followed by an application of 1.5 to 3 fluid ounces per acre about 45 days later. Make no more than two applications per year.

For burndown of bermudagrass, apply 24 to 48 fluid ounces of this product in 3 to 20 gallons of water per acre. Make this application only if a reduction of the bermudagrass stand can be tolerated. When burndown is required prior to harvest, make the application a minimum of 21 days prior to harvest to allow sufficient time for burndown to occur.

For suppression of bermudagrass, apply 4.5 to 12 fluid ounces of this product per acre east of the Rocky Mountains and 12 fluid ounces west of the Rocky Mountains in a total spray volume of 3 to 20 gallons per acre no sooner than 1 to 2 weeks after full green-up. If the bermudagrass is mowed prior to application, maintain a minimum of 3 inches in height. Sequential applications may be made when re-growth occurs and bermudagrass injury and stand reduction can be tolerated. East of the Rocky Mountains, apply 4.5 to 7.5 fluid ounces of this product per acre under shaded conditions or where a lesser degree of suppression is desired.

Cut Stump Application

Application of this product to a freshly cut tree stump may be made during site preparation or site renovation to control regrowth and re-sprouting of stumps of many tree species, some of which are listed below.

Citrus Trees: Calamondin, Chironja, Citron, Citrus hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarin (Tangerine), Orange (all), Pummelo, Tangelo, Tanger

Fruit Trees: Apple, Apricot, Cherry (sweet, sour), Crabapple, Loquat, Mayhaw, Nectarine, Olive, Peach, Pear, Plum/Pruet (all), Quince

Nut Trees: Almond, Beechnut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (hazelnut), Hickory nut, Macadamia, Pecan, Pistachio, Walnut (black, English)

USE INSTRUCTIONS: Cut the tree close to the soil surface and immediately apply a 50- to 100-percent (undiluted) solution of this product to the freshly cut surface using application equipment capable of covering the entire cambium. A delay in application could result in reduced performance. For enhanced results, cut the tree during period of active growth and full leaf expansion and apply this product.

PRECAUTIONS: DO NOT MAKE A CUT STUMP APPLICATION WHEN THE ROOTS OF ADJACENT DESIRABLE TREES MIGHT BE GRAFTED TO THE ROOTS OF THE CUT STUMP; AS INJURY COULD OCCUR IN ADJACENT TREES. Some sprouts, stems or trees can share a common root system. Adjacent trees having a similar age, height and spacing could be an indicator of a shared root system. Whether grafted or shared, injury is likely to occur to adjacent stems or trees when this product is applied to one or more trees sharing a common root system.

11.1 Citrus Fruit Crops

LABELLED CROPS: All cultivars, varieties and/or hybrids of Calamondin; Chironja; Citron; Citrus Hybrids; Grapefruit (including Japanese summer); Kumquat; Lemon; Lime (including Australian desert lime, Australian finger lime, Australian round lime, Brown river finger lime, Mount white, New Guinea wild, Russell river, sweet, and Tahiti); Mandarin (including Mediterranean, Satsuma); Orange (all); Pummelo; Tangelo (ugli); Tangerine (Mandarin); Tangor; Uniq Fruit (ugli)

TYPES OF APPLICATION: Preplant (site preparation); Broadcast Spray, Selective Equipment (shielded sprayer, wiper applicator), Directed Spray or Spot Treatment in Middles (between rows of trees) or Strips (within rows of trees); Perennial Grass Suppression; Cut Stump Application

USE INSTRUCTIONS: The following use instructions pertain to application in Florida and Texas only.

For burndown or control of the weeds listed below, apply this product at the specified rate in 3 to 30 gallons of water per acre. Where weed foliage is dense, use 10 to 30 gallons of water per acre.

To control goatweed, apply 48 to 72 fluid ounces of this product in 20 to 30 gallons of water per acre when plants are actively growing. Apply 48 fluid ounces per acre when plants are less than 8 inches tall and 72 fluid ounces per acre when plants are greater than 8 inches tall. If goatweed is greater than 8 inches tall, the use of this product in a tank-mix with Krovat 1 or Karmex could improve weed control. Refer to the individual product labels for specific crops, rates, geographic restrictions and precautionary statements.

Weed Species	Level of Perennial Weed Control at Various Application Rates (amount of this product per acre)			
	24 fl oz	48 fl oz	2.25 quarts	3.75 quarts
Bermudagrass	B	—	PC	C
Guinea grass				
Texas and Florida Ridge	B	C	C	C
Florida Flatwoods	—	B	C	C
Para grass	B	C	C	C
Torpedograss	S	—	PC	C

S = Suppression, PC = Partial Control, B = Burndown, C = Control

RESTRICTIONS: Allow a minimum of 1 day between application and harvest of citrus fruit crops. For citron groves, apply as a directed spray only.

11.2 Annual and Perennial Crops

THIS SECTION PROVIDES DIRECTIONS FOR USE OF THIS PRODUCT THAT APPLY TO ALL CROPS LISTED IN THE FOLLOWING SECTIONS. SEE THE INDIVIDUAL CROP SECTIONS FOR SPECIFIC USE INSTRUCTIONS, PREHARVEST INTERVALS, AND ADDITIONAL PRECAUTIONS AND RESTRICTIONS.

TYPES OF APPLICATION: Chemical Fallow; Preplant Fallow Beds; Preplant; At-Planting; Preemergence; Hooded Sprayer in Row Middles; Shielded Sprayer in Row Middles; Wiper Applicator in Row Middles; Post-Harvest

USE INSTRUCTIONS: This product may be applied during fallow intervals preceding planting, prior to planting or transplanting, at-planting, or preemergence to annual and perennial crops listed on this label, except where specifically limited. For any crop not listed on this label, application must be made a minimum of 30 days prior to planting. Unless otherwise directed, apply this product according to the rates listed in the "WEEDS CONTROLLED" section of this label. Application rates specified on this label for hard-to-control weeds, or those specified on separate supplemental labeling for this product, supersede the rates in the "WEEDS CONTROLLED" section of this label. Additional information on hard-to-control weeds can be found on Fact Sheets published for this product.

Application of this product may be repeated as needed up to a maximum of 6 quarts per acre per year. Refer to specific use sections of this label for additional information on minimum intervals required before re-application of this product.

Hooded sprayers and wiper applicators capable of preventing all contact of the herbicide solution with the crop may be used in mulched or unmulched row middles after crop establishment. Wiper applicators may be used over the top of crops to control tall weeds only when specifically directed in the individual crop sections that follow. Crop injury is possible with these methods of application. Refer to the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for information regarding the potential for crop injury using selective application equipment.

Spot treatment application of this product for weed control in a cropping system may be made only when specifically directed in the individual crop sections that follow.

Unless otherwise prohibited, all applications of this product described in the sections that follow may be made using aerial application equipment where appropriate, provided that the applicator complies with the precautions and restrictions specified on this label and on all supplemental labeling published for this product. Refer to the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for information on aerial application and procedures for avoiding spray drift that could cause injury to any vegetation not intended for application. Use of appropriate buffers will help prevent injury to adjacent vegetation.

TANK MIXTURES: This product may be tank-mixed with other herbicides to provide residual weed control, a broader weed control spectrum or an alternate mechanism of action. Always read and follow label directions for all products in the tank mixture. Use all products according to rates and timing specified on the label. Some tank-mix products have the potential to cause crop injury. Read the label for all products in the tank mixture prior to use to determine the potential for crop injury. Always predetermine the compatibility of tank-mix products together in the carrier by mixing small proportional quantities in advance. Mixing other products with this herbicide in the spray tank can cause incompatibility, antagonism, or a reduction in the efficacy of this product. Bayer CropScience LP has not tested all product formulations for compatibility or performance in a tank-mix with this product. To the extent consistent with applicable law, buyer and all users are responsible for any and all loss or damage in connection with the use or handling of mixtures of this product with herbicides or other materials that are not specifically identified on this label or on separate supplemental labeling or Fact Sheets for this product. See the "MIXING" section of this label for more information on tank mixtures.

PRECAUTIONS: Avoid contact of this herbicide with foliage, green shoots or stems, bark, exposed roots (including those emerging from plastic mulch), or fruit of crops, as severe crop injury or destruction could result. Transplant seedlings coming into contact with weeds that are still wet with a spray solution of this product could result in significant crop injury. When making preemergence applications, application must be made before crop emergence to avoid severe crop injury. Broadcast application of this product at emergence will result in injury or death of emerged seedlings. Apply before seed germination in coarse sandy soils to further minimize the risk of crop injury. In crops where spot treatment is allowed, the crop sprayed with this product will be killed along with the weeds. Take care not to spray or allow spray to drift outside the target area in order to avoid unwanted crop destruction. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for additional information.

Preharvest application on crops grown for seed could result in a reduction in germination or vigor. To the extent consistent with applicable law, buyer and all users are responsible for any and all loss or damage in connection with the preharvest use of this product on any crop grown for seed.

RESTRICTIONS: Observe the maximum application rates stated throughout this label. Maximum application rates apply to the use of this product combined with the use of any and all other herbicides containing glyphosate as the active ingredient, whether applied separately or as mixtures. Calculate the application rates (glyphosate acid equivalents) and ensure that the total use of this and other glyphosate-containing products does not exceed the stated maximum rate. See the "PRODUCT INFORMATION" section of this label for more information on Maximum Application Rates.

Unless otherwise directed on this label, application using selective equipment, including wiper applicators and hooded sprayers, must be made a minimum of 14 days prior to harvest. In crops where spot treatment is allowed, do not apply this product to more than 10 percent of the total field to be harvested, unless otherwise directed. Post-harvest and fallow application must be made a minimum of 30 days prior to the planting of any crop not listed on this label.

Do not harvest or feed vegetation from an area for 8 weeks following broadcast postemergence application, unless otherwise directed.

When applying this product as a tank mixture with one or more products, refer to each individual tank-mix product label for restrictions and apply the mixture in accordance with the most restrictive statements for each product in the tank.

11.2.1 Sugarcane

TYPES OF APPLICATION: Chemical Fallow; Preplant; At-Planting; Preemergence; Hooded Sprayer in Row Middle; Shielded Sprayer in Row Middle; Wiper Applicator in Row Middle; Spot Treatment; Plant Growth Regulator; Post-Harvest

Preplant, At-Planting, Preemergence

USE INSTRUCTIONS: This product may be applied in or around sugarcane fields, or in fields prior to the emergence of plant cane.

RESTRICTIONS: Do not apply to vegetation in or around ditches, canals or ponds containing water to be used for irrigation unless the surfactant added to the spray solution is labeled for herbicide use and approved for aquatic application.

Spot Treatment

USE INSTRUCTIONS: This product may be applied as a spot treatment in sugarcane. For control of volunteer or diseased sugarcane, apply a 1-percent solution of this product in water using a handheld sprayer and a spray-to-wet technique. Enhanced results can be obtained on volunteer or diseased sugarcane when application is made when there are at least 7 new leaves. Avoid contact of this herbicide with healthy sugarcane plants as severe damage or destruction could result.

RESTRICTIONS: Do not feed or graze treated sugarcane foliage within the application area.

Hooded Sprayer

USE INSTRUCTIONS: This product may be applied using a hooded sprayer for weed control in between rows of sugarcane. See additional instructions on the use of hooded sprayers in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

PRECAUTIONS: Do not allow weeds within the application area to come into contact with the crop.

Plant Growth Regulation

USE INSTRUCTIONS: This product may be used as a foliar-applied plant growth regulator to hasten ripening and extend the period of high sucrose level in both low- and high-tonnage sugarcane. Most of the sucrose increase is concentrated in the top nodes of the cane stalk. To maximize sugar recovery where topping is practiced at harvest, top at the base of the fourth leaf. Consult your state sugarcane authority or local Bayer CropScience LP representative regarding the degree of sucrose response that can be anticipated prior to application of this product.

As a result of leaf desiccation, improved trash burn can be expected.

Apply this product at the following rates and timing according to the State in which the sugarcane is grown. Use a higher application rate within the given range when applying to sugarcane under adverse ripening conditions or to less responsive varieties.

FLORIDA — Apply 6 to 14 fluid ounces of this product per acre 3 to 5 weeks before harvest of LAST RATOON CANE ONLY.

HAWAII — Apply 10 to 24 fluid ounces of this product per acre 4 to 10 weeks before harvest.

LOUISIANA — Apply 4 to 14 fluid ounces of this product per acre 3 to 7 weeks before harvest of RATOON CANE ONLY.

PUERTO RICO — Apply 6 fluid ounces of this product per acre 3 to 5 weeks before harvest of RATOON CANE ONLY.

TEXAS — Apply 6 to 14 fluid ounces of this product per acre 3 to 5 weeks before harvest of RATOON CANE ONLY.

PRECAUTIONS: Application of this product can initiate development of shooting eyes. This product might not increase the sucrose content of sugarcane under conditions of good natural ripening. Within 2 to 3 weeks after application, this product could produce a slight yellowing to a pronounced browning and drying of leaves, and a shortening of upper internodes. Spindle death could occur.

Rainfall within 6 hours after application could reduce the effectiveness of this product.

Application to sugarcane grown for seed could result in a reduction in germination or vigor. To the extent consistent with applicable law, buyer and all users are responsible for any and all loss or damage in connection with the preharvest use of this product on sugarcane grown for seed.

RESTRICTIONS: Do not feed or graze sugarcane forage following application. Do not plant subsequent crops within 30 days after application of this product other than the following: alfalfa or other forage legumes, beans (all types), corn (all types), cotton, melons (all types), pasture grasses, peanuts, potatoes (Irish or sweet), sorghum (milo), soybean, squash (all types) or wheat.

Do not apply for enhanced ripening to any crops other than sugarcane. Use of this product in any manner not consistent with this label could result in injury to persons, animals or crops, or other unintended consequences.

Fallow Treatment

USE INSTRUCTIONS: This product may be used as a replacement for tillage in fields that are lying fallow between sugarcane crops. This product may also be used to remove the last stubble of ratoon cane by applying 3 to 3.75 quarts of this product in 10 to 40 gallons of water per acre to new growth having at least 7 new leaves. Allow a minimum of 7 days after application before tillage. Aerial application of up to 72 fluid ounces per acre may be made onto fallow sites where there is sufficient buffer to prevent drift onto adjacent crops. Tank mixtures with 2,4-D or dicamba may be used. Ensure that the product used is labeled for this application in sugarcane. Read and follow label directions for all products in the tank mixture.

11.3 Grass Seed and Sod Production

USE INSTRUCTIONS: Refer to the "WEEDS CONTROLLED" section of this label for application rates of this product for specific weeds. When applied as directed, this product will control those annual and perennial grasses and broadleaf weeds listed. Application rates specified on this label for hard-to-control weeds, or those specified on separate supplemental labeling for this product, supersede rates listed in the "WEEDS CONTROLLED" section of this label. Additional information on hard-to-control weeds can be found on Fact Sheets published for this product.

LABELLED CROPS: Any grass (*Gramineae* family) except Corn; Sorghum; Sugarcane; Barley; Buckwheat; Millet (pearl, proso); Oats; Rice; Rye; Quinoa; Teff; Teosinte; Triticale; Wheat (all types); Wild rice

TYPES OF APPLICATION: Preplant; At-Planting; Preemergence; Renovation; Removal of Established Stands; Site Preparation; Shielded Sprayer; Wiper Application; Spot Treatment; Creating Rows in Annual Ryegrass

Preplant, At-Planting, Preemergence, Renovation, Removal of Established Stand, Site Preparation

USE INSTRUCTIONS: This product controls most existing vegetation for purposes of renovating turf or forage grass seed production areas, or for establishing turfgrass grown for seed. This product may be used to destroy undesirable grass vegetation when production fields are converted to alternative species or crops. Do not disturb soil or underground plant parts before application and delay tillage or renovation techniques, including vertical mowing, coring and slicing, for a minimum of 7 days after application to allow for herbicide translocation into underground plant parts.

Apply before, during or after planting, or for renovation purposes. Where existing vegetation is growing under mowed turfgrass management, apply this product after omitting at least one regular mowing to allow sufficient growth for good interception of the herbicide spray. For maximum control of existing vegetation, delay planting until determining if any re-growth of underground plant parts will occur. Where repeat applications are necessary, sufficient re-growth must be attained prior to application. For warm-season grasses, such as bermudagrass, summer or fall application provides enhanced control. Broadcast application of this product may be used to control sod remnants or other unwanted vegetation after sod is harvested. Application rates of up to 3.75 quarts per acre may be used to totally remove an established stand of hard-to-kill grass species.

RESTRICTIONS: If application rate is 2.25 quarts of this product per acre or less, no waiting period between application and feeding or livestock grazing is required. If the rate is greater than 2.25 quarts per acre, remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting. Crops listed on this label may be planted into the area at any time; all other crops may be planted 30 days after application.

Shielded Sprayer

USE INSTRUCTIONS: Apply 24 to 72 fluid ounces of this product in 10 to 20 gallons of water per acre using a shielded sprayer to control weeds between grass seed rows. Uniform planting in straight rows will aid shielded sprayer application. Enhanced results can be obtained when the grass seed crop is small enough to easily pass by the protective shields. See additional instructions on the use of shielded sprayers in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

PRECAUTIONS: Contact of this product in any manner to any vegetation to which application is not intended could cause damage.

Wiper Applicator

USE INSTRUCTIONS: This product may be applied over the top of desirable grasses using a wiper applicator for the control of tall weeds. See additional instructions on the use of wiper applicators in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

PRECAUTIONS: Droplets, mist, foam or splatter of the herbicide solution settling onto desirable vegetation could result in discoloration, stunting or destruction.

Spot Treatment

USE INSTRUCTIONS: Apply a 1-percent solution of this product using a handheld sprayer to control weeds within established vegetation prior to heading of grasses grown for seed or to control sod remnants or other unwanted vegetation after sod is harvested.

PRECAUTIONS: This product will kill the desirable grasses along with the weeds. Take care not to spray or allow spray to drift outside the target area in order to avoid unwanted crop destruction.

Creating Rows in Annual Ryegrass

USE INSTRUCTIONS: Use low-pressure nozzles or drop nozzles designed to target the application over a narrow band. Set nozzle height to establish the desired row spacing and apply 12 to 24 fluid ounces of this product per acre. Enhanced results can be obtained when application is made before ryegrass reaches 6 inches in height. Use the higher application rate within this range when ryegrass is greater than 6 inches in height.

PRECAUTIONS: Take care not to spray or allow spray to drift outside target area in order to avoid unwanted crop destruction. To the extent consistent with applicable law, grower assumes all responsibility for crop losses resulting from misapplication of this product.

12.0 WEEDS CONTROLLED

Read the entire label before proceeding to use this product.

Unless otherwise directed, this product requires the addition of a nonionic surfactant that is labeled for use with herbicides to the spray solution. See the "MIXING" section of this label for more information on the use of surfactants with this product.

Always use the higher application rate or spray solution concentration of this product within a given range when weed growth is heavy or dense, or when weeds are growing in an undisturbed (non-cultivated) area.

Poor weed control could be realized if application is made to weeds covered with dust. For weeds that have been mowed, grazed or cut, allow re-growth to occur prior to application of this product.

Refer to the sections that follow for application rates and timing of application for the control of annual and perennial weeds and woody brush, trees and vines.

12.1 Weed Control, Renovation and Chemical Mowing in Turf

The use of this product described in this section may be applied to turfgrass growing on any terrestrial site listed on this label. Ensure that any tank-mix product applied with this product is labeled for the intended use and on the site of application.

Weed Control in Dormant Bermudagrass and Bahiagrass

This product may be used to control or suppress many winter annual weeds and tall fescue for effective release of dormant bermudagrass and bahiagrass

prior to spring green-up in areas where these turfgrasses are desirable ground covers and some temporary injury or discoloration can be tolerated.

Apply 6 to 48 fluid ounces of this product in 10 to 40 gallons of water per acre when bermudagrass and bahiagrass are dormant and prior to spring green-up.

Application of more than 12 fluid ounces of this product per acre on highly maintained bermudagrass and bahiagrass turf, such as golf courses and lawns, could result in injury or delayed green-up in the spring.

For residual weed control in dormant bermudagrass and bahiagrass, this product may be tank-mixed with Outrider®, Oust Extra or Oust XP herbicides. Apply 6 to 48 fluid ounces of this product in a tank-mix with an appropriate rate of Outrider, Oust Extra or Oust XP herbicide in 10 to 40 gallons of water per acre. To avoid delays in green-up and minimize injury, apply no more than 1 ounce of Oust Extra or Oust XP herbicide per acre on bermudagrass and no more than 0.5 ounce on bahiagrass, and avoid application when these grasses are in a semi-dormant condition.

DO NOT apply this product in a tank-mix with Outrider, Oust Extra or Oust XP herbicides on highly maintained bermudagrass and bahiagrass turf, such as on golf courses and lawns.

Weed Control in Actively Growing Bermudagrass

This product may be used to control or partially control many annual and perennial weeds in actively growing bermudagrass. Some bermudagrass injury could result from the application of this product, but the bermudagrass will recover under most conditions once the effects of the product wear off. Use only on well-established bermudagrass where some temporary injury or discoloration can be tolerated.

Apply 12 to 36 fluid ounces of this product in 10 to 40 gallons of spray solution per acre. Use a lower application rate within this range when controlling annual weeds less than 4 inches tall (or runner length) and increase the rate towards the upper end of the range as weeds increase in size or as they approach flower or seedhead formation. At these application rates, this product will provide partial control of the following perennial weeds in actively growing bermudagrass:

- Bahiagrass
- Bluemist, silver
- Fescue, tall
- Johnsongrass
- Trumpet creeper
- Vaseygrass

PRECAUTIONS: Applying more than 12 fluid ounces of this product per acre on highly maintained bermudagrass, such as on golf courses and lawns, could cause unacceptable turf injury and discoloration.

For a broader weed control spectrum in actively growing bermudagrass, this product may be tank-mixed with Outrider, Oust Extra or Oust XP herbicides. Apply these tank-mixtures only on well-established bermudagrass where some temporary injury or discoloration can be tolerated. Make no more than one application of this product in these tank mixtures in the same season, otherwise the bermudagrass could be severely injured.

Apply 6 to 24 fluid ounces of this product per acre in a tank-mix with Outrider herbicide for control or partial control of Johnsongrass and other weeds listed on the Outrider herbicide label. Use a higher application rate of both products within the given ranges for control of annual or perennial weeds greater than 6 inches tall.

Apply 12 to 24 fluid ounces of this product per acre in a tank-mix with Oust Extra or Oust XP herbicide per acre for enhanced control of weeds listed on those labels. Use a lower application rate of each product within the given ranges to control annual weeds listed on the labels that are less than 4 inches tall (or runner length) and increase the rates toward the upper end of the ranges as annual weeds increase in size and approach the flower or seedhead stage. This tank-mix will provide partial control of the following perennial weeds in actively growing bermudagrass:

- Bahiagrass
- Bluemist, silver
- Broomsedge
- Dallisgrass
- Dock, curly
- Dogfennel
- Fescue, tall
- Johnsongrass
- Poorjoe
- Trumpet creeper
- Vaseygrass
- Vervain, blue

PRECAUTIONS: Apply these tank mixtures only on well-established bermudagrass where some temporary injury or discoloration can be tolerated. DO NOT apply this product in a tank mixture with Outrider or Oust herbicides on highly maintained bermudagrass, such as on golf courses and lawns.

Weed Control in Actively Growing Bahiagrass

For suppression of vegetative growth and seedhead inhibition of bahiagrass for approximately 45 days, apply 4 fluid ounces of this product in 10 to 40 gallons of water per acre 1 to 2 weeks after full green-up or after mowing to a uniform height of 3 to 4 inches prior to seedhead emergence.

For growth suppression of bahiagrass for up to 120 days, apply 3 fluid ounces of this product per acre, followed by an application of 2 to 3 fluid ounces per acre about 45 days later. Make no more than two growth suppression applications per year.

For broad spectrum weed control in actively growing bahiagrass, this product may be tank-mixed with Outrider®, Oust Extra or Oust XP herbicides.

Apply 1.5 to 3.5 fluid ounces of this product per acre in a tank-mix with an appropriate rate of Outrider herbicide per acre to control perennial weeds or annual weeds greater than 4 inches in height.

Apply 4 fluid ounces of this product per acre in a tank-mix with an appropriate rate of Oust Extra or Oust XP herbicide 1 to 2 weeks following an initial spring mowing for enhanced control of weeds listed on the Oust herbicide label in actively growing bahiagrass. Make this application only once per year.

PRECAUTIONS: Apply these tank mixtures only on well-established bahiagrass where some temporary injury or discoloration can be tolerated.

Turf Renovation

This product controls most existing vegetation prior to renovating turfgrass areas or establishing turfgrass growing for seed or sod. For maximum control of existing vegetation, delay planting or sodding until after determining if any re-growth of underground plant parts will occur. Where repeat applications are necessary, sufficient re-growth must be attained prior to re-application of this product. Summer or fall application provides enhanced control of warm-season grasses, such as bermudagrass. For managed turfgrass, apply this product after omitting at least one regular mowing to allow sufficient growth for good interception of the spray solution.

This product has no residual soil activity and will not affect plants, seed or sod planted back into the area after application.

A handheld sprayer may be used for spot treatment of unwanted vegetation growing in existing turfgrass. Broadcast application or spot treatment using a handheld sprayer may be used to control sod remnants or other unwanted vegetation after sod is harvested.

PRECAUTIONS: Do not disturb soil or underground plant parts before application of this product. Delay tillage and renovation techniques, such as vertical mowing, coring or slicing, a minimum of 7 days after application to allow translocation of this herbicide into underground plant parts.

RESTRICTIONS: If application rates total 2.25 quarts of this product per acre or less, no waiting period between application and feeding or livestock grazing is required. If the rate is greater than 2.25 quarts per acre, remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting.

Chemical Mowing

This product may be used to suppress growth of perennial and annual grasses to serve as a substitute for mowing.

Perennial Grasses – apply 5 fluid ounces of this product per acre to suppress growth of Kentucky bluegrass, or 6 fluid ounces to suppress tall fescue, fine fescue, orchardgrass, quackgrass or reed canarygrass in 10 to 40 gallons of spray solution per acre after grasses have greened up to at least 75 percent green color in the spring, or 7 to 10 days after mowing when sufficient

re-growth has occurred to provide a desirable height for growth regulation. Use chemical mowing only in areas where some temporary injury or discoloration of perennial grasses can be tolerated.

Annual Grasses— apply 3 to 4 fluid ounces of this product in 10 to 40 gallons of spray solution per acre to suppress growth of some annual grasses, such as annual ryegrass, wild barley and wild oats when actively growing in coarse turf on roadsides or other industrial areas and before the seedheads are in the boot stage of development. This application could injure the desired annual grasses.

PRECAUTIONS: Use this product for chemical mowing only in areas where some temporary injury or discoloration of perennial and annual grasses can be tolerated.

12.2 Annual Weeds

Annual weeds are easiest to control when they are small and actively growing. New leaf development indicates active growth.

To control or partially control the annual weeds listed in this section when they are less than 6 inches in height or runner length and actively growing, apply 24 fluid ounces of this product per acre. If they are over 6 inches in height or runner length, or slowly growing under stressed conditions, increase the application rate to 1 to 4 quarts per acre, depending on weed height and the severity of the poor growing conditions.

For application using a handheld sprayer with a spray-to-wet technique, apply a 0.5-percent solution of this product to annual weeds less than 6 inches in height or runner length prior to seedhead formation in grasses or bud formation in broadleaf weeds. To control annual weeds over 6 inches tall, or even smaller weeds growing under stressed conditions, apply a 0.75 to 1.5-percent solution. Apply the maximum concentration of this product within this range for hard-to-control weeds or to control weeds over 24 inches tall.

For control of annual weeds using a handheld controlled droplet applicator (CDA), apply a 15-percent solution of this product (19 to 20 fluid ounces of this product per gallon of spray solution) at a flow rate of 2 fluid ounces of spray solution per minute and a walking speed of 1.5 miles per hour (1 quart of spray solution per acre). When using a vehicle-mounted CDA, apply the required amount of this product, as indicated in this section, in 2 to 15 gallons of water per acre.

For enhanced control, do not mow, cut, till, burn or disturb vegetation in the application area for a minimum of 3 days after application.

This product has no residual soil activity and does not control emergence of new annual weeds from seed. Subsequent applications of this product will be needed to control weeds that continue to emerge.

WEED SPECIES	
Anoda, spurred	Coreopsis, plains/tickseed
Balsam apple ¹	Corn
Barley	Crabgrass
Barley, little	Cupgrass, woolly
Barnyardgrass	Dwarf dandelion
Bassia, fivehook	Eclipta
Bittercress	False dandelion
Bluegrass, annual	False flax, small-seed
Bluegrass, bulbous	Fiddleneck
Brome, downy	Filaree
Brome, Japanese	Fleabane, annual
Broomsedge	Fleabane, hairy (Conyza bonariensis)
Buttercup	Fleabane, rough
Castor bean ²	Foxtail
Cheatgrass	Foxtail, Carolina
Cheeseweed (Malva parviflora)	Geranium, Carolina
Chervil	Goatgrass, jointed
Chickweed	Goosegrass
Cocklebur	Groundsel, common
Copperleaf, hophornbeam	Henbit
Copperleaf, Virginia	

Horseweed/Marestail (Conyza canadensis)	Rocket, London
Itchgrass	Rocket, yellow
Johnsongrass, seedling	Rye
Junglerice	Ryegrass
Knotweed	Sandbur, field
Kochia	Sesbania, hemp
Lambsquarters	Shattercane
Lettuce, prickly	Shepherd's-purse
Mannagrass, eastern	Sicklepod
Mayweed	Signalgrass, broadleaf
Medusahead	Smartweed, ladythumb
Morning glory (Ipomoea spp)	Smartweed, Pennsylvania
Mustard, blue	Sorghum, grain (milo)
Mustard, tansy	Sowthistle, annual
Mustard, tumble	Spanish needles ³
Mustard, wild	Speedwell, corn
Nightshade, black	Speedwell, purslane
Oats	Sprangletop
Panicum, browntop	Spurge, annual
Panicum, fall	Spurge, prostrate
Panicum, Texas	Spurge, spotted
Pennycress, field	Spurry, umbrella
Pepperweed, Virginia	Starthistle, yellow
Pigweed	Stinkgrass
Puncturevine	Sunflower
Purslane, common	Teaweed / Prickly sida
Pusley, Florida	Thistle, Russian
Ragweed, common	Velvetleaf
Ragweed, giant	Wheat
Rice, red	Wild oats
	Witchgrass

- ¹ For control of balsam apple, apply this product using handheld equipment only.
- ² Control of castor bean can also be achieved by injecting 4 milliliters of this concentrated (undiluted) product per plant into the lower portion of the main stem.
- ³ For control of Spanish needles, apply 48 fluid ounces of this product per acre.

12.3 Perennial Weeds

Enhanced control of perennial weeds can be obtained when this product is applied when target weeds are small and actively growing. New leaf development indicates active growth. If application of this product must be made to larger weeds or to weeds that are slowly growing under stressful conditions, apply at a rate or spray solution concentration towards the upper end of the specified range.

If weeds have been mowed or tilled, do not apply this product until plants have resumed active growth and have reached the specified stage of growth or sufficient growth has been achieved to allow for good interception of the spray solution. For enhanced control, do not mow, cut, till, burn or disturb vegetation in the application area for a minimum of 7 days after application.

For control of perennial weeds listed on this label using backpack or handheld equipment and a low-volume application technique, apply a 4 to 8-percent solution of this product over the crown of the target plant to cover 50 percent of the upper plant foliage.

For control of perennial weeds using a handheld controlled droplet applicator (CDA), apply a 15 to 30-percent solution of this product (19 to 38 fluid ounces of this product per gallon of spray solution) at a flow rate of 2 fluid ounces of spray solution per minute and a walking speed of 0.75 mile per hour (2 to 4 quarts of spray solution per acre). When using a vehicle-mounted CDA, apply the required amount of this product, as indicated in the following table, in 2 to 15 gallons of water per acre.

Application of this product in the fall must be made before a killing frost. This product has no soil activity and does not control emergence of perennial weeds from seed and dormant underground roots, rhizomes or tubers present in the soil at the time of application. More than one application of this product

will be necessary for continued control of weeds that emerge following application.

PERENNIAL WEEDS RATE TABLE		
Weed Species	Broadcast Rate (quarts/ acre)	Handheld Spray-to-Wet Concentration (% solution)
Alfalfa*	0.7	1.5
Alligatorweed*	3	1.3
Apply this product when most of the target plants are in bloom. More than one application will be needed to achieve control.		
Anise (fennel)	1.5 – 3	1 – 1.5
Bahiagrass	2.3 – 3.75	1.5
Beachgrass, European	–	3.5

Apply a 3.5-percent solution of this product using a spray-to-wet technique or an 8-percent solution using a low-volume application technique. Enhanced results can be obtained when application is made onto target weeds that are actively growing at the boot through the full-heading stage of development. Make application prior to the loss of more than 50 percent of green leaf color in the fall. Monitor application site and re-apply this product to any target weeds that were missed, if necessary, before re-seeding the area with desirable vegetation. For selective control of European beachgrass, apply a 33.3-percent solution of this product containing 1 to 2.5 percent of a nonionic surfactant during period of active growth using a wiper applicator. Maximizing the amount of individual leaf tissue contacted by the wiper applicator or making a second pass in the opposite direction will improve control. Avoid contact of the herbicide solution with desirable vegetation.

Bentgrass*	1	1.5
Bermudagrass	4	1.5
Make application when seedheads are present.		
Bermudagrass, water (knotgrass)	1	1.5
Bindweed, field	2.3 – 3.75	1.5

For control, apply 3 to 3.75 quarts of this product per acre as a broadcast application west of the Mississippi River and 2.3 to 3 quarts per acre east of the Mississippi River when bindweed is at or beyond full bloom. For enhanced results, apply in late-summer or fall.

Bittersweet, Oriental	2.25	2
For control of oriental bittersweet, apply this product as a broadcast spray in 30 to 40 gallons of spray solution containing 0.25 percent of a nonionic surfactant and 0.1 percent nonionic organosilicone per acre. Use a nonionic surfactant concentration of 0.5 to 2 percent by volume when using a handheld sprayer and a spray-to-wet application. For enhanced results, ensure complete coverage of the target plant with the spray solution.		

Bluegrass, Kentucky	1.5 – 2.3	0.75
Apply when most target plants have reached the boot to head stage of development. When application is made prior to the boot stage, reduced control can result. In the fall, make application before plants have turned brown.		
Blueweed, Texas	2.3 – 3.75	1.5

Apply 3 to 3.75 quarts of this product per acre west of the Mississippi River and 2.3 to 3 quarts per acre east of the Mississippi River when most target plants are at or beyond full bloom. For enhanced results, apply in late-summer or fall.

Brackenfern	2.3 – 3	0.75 – 1
Apply to fully expanded fronds that are at least 18 inches long.		

PERENNIAL WEEDS RATE TABLE		
Weed Species	Broadcast Rate (quarts/ acre)	Handheld Spray-to-Wet Concentration (% solution)
Bromegrass, smooth	1.5 – 2.3	0.75
Apply this product when most target plants have reached the boot to head stage of development. When application is made prior to the boot stage, reduced control can result. In the fall, make application before plants have turned brown.		
Bursage, woolly-leaf	–	1.5
Canarygrass, reed	1.5 – 2.3	0.75
Apply this product when most target plants have reached the boot to head stage of development. When application is made prior to the boot stage, reduced control can result. In the fall, make application before plants have turned brown.		
Cattail	2.3 – 3.75	0.75
Apply this product when target plants are actively growing and are at or beyond the early to full bloom stage of development. Enhanced results are achieved when application is made during the summer or fall months.		
Clover; red, white	2.3 – 3.75	1.5
Cogongrass	2.3 – 3.75	1.5
Apply this product in late-summer or fall when cogongrass is at least 18 inches tall and actively growing. Due to uneven stages of growth and the dense nature of cogongrass vegetation, more than one application might be necessary to achieve control.		
Cordgrass	2 – 8	5 – 8

Prior to application of this product for control of cordgrass, survey the area to determine if shellfish beds exist within the application area. If shellfish are intended to be harvested in the area, delay application of this product until after harvest or maintain a 50-foot buffer between the application area and commercial shellfish beds, or do not harvest shellfish for a minimum of 14 days following application of this product. See restrictions below.

Ideal conditions for control of cordgrass are when target plants are free of silt and debris and actively growing, and good spray coverage is achievable. The presence of debris or silt on the surface of cordgrass will reduce the performance of this product. To improve herbicide uptake, wash targeted plants prior to application and allow a minimum of 4 hours for plants to dry before applying this product. Where cordgrass has been cut or mowed prior to application, allow for sufficient re-growth before applying this product to ensure adequate interception and uptake of this product. Rainfall or immersion of the plant in tidewater within 4 hours after application could reduce the effectiveness of this product.

Apply 2 to 8 quarts of this product per acre using ground broadcast application or optical sensor equipment in 5 to 100 gallons of spray solution, or in 5 to 10 gallons of spray solution per acre when using aerial application equipment.

Apply a 5- to 8-percent solution of this product when using a handheld backpack sprayer or high-volume sprayer. Make all applications of this product for the control of cordgrass in a spray solution containing 0.25% or more (1 or more quarts per 100 gallons of spray solution) of a nonionic surfactant or other adjuvant that is compatible with this product and labeled for use with herbicides and approved for use on aquatic sites. For enhanced results, ensure complete coverage of cordgrass clumps.

RESTRICTIONS: If a minimum 50-foot buffer is maintained between the application area and commercial shellfish beds, there is no restriction on shellfish harvest. If application is made within 50 feet of commercial shellfish beds, DO NOT harvest shellfish for a minimum of 14 days following application of this product.

PERENNIAL WEEDS RATE TABLE		
Weed Species	Broadcast Rate (quarts/ acre)	Handheld Spray-to-Wet Concentration (% solution)
Cutgrass, giant*	3	1
More than one application of this product will be required to achieve control, especially where vegetation is partially submerged in water. Allow target weeds to re-grow to the 7- to 10-leaf stage before making next application.		
Dallisgrass	2.3 – 3.75	1.5
Dandelion	2.3 – 3.75	1.5
Dock, curly	2.3 – 3.75	1.5
Dogbane, hemp	3	1.5
Apply this product when most target plants have reached the late-bud to flower stage of growth. For enhanced results, make application in late-summer or fall.		
Fescue (except tall)	2.3 – 3.75	1.5
Fescue, tall	2.3	1
Apply this product when most target plants have reached the boot to head stage of growth. If applied prior to the boot stage, less than desirable control might be obtained.		
Guinea grass	2.3	0.75
Apply this product when most target plants have at least reached the 7-leaf growth stage.		
Hemlock, poison	1.5 – 3	0.75 – 1.5
Control can also be achieved by injecting 5 milliliters of a 5-percent solution of this product using a handheld injection device in one leaf cane per plant, 12 inches above the root crown. ¹ No surfactant is required.		
Hogweed, giant	–	–
Inject 5 milliliters of a 5-percent solution of this product into one leaf cane per plant, 12 inches above the root crown. ¹ No surfactant is required.		
Horsenettle	2.3 – 3.75	1.5
Horseradish	3	1.5
Apply this product when most target plants have reached the late-bud to flower stage of development. For enhanced results, apply in late-summer or fall.		
Horsetail, field	–	–
Inject 0.5 milliliter of this product per stem directly into the plant stem, one segment above the root crown. ¹ No surfactant is required.		
Iceplant	1.5	1.5
Iris, yellow flag	–	–
Cut flower stems 8 to 9 inches above the root crown. Push a cavity needle into the stem center and then slowly remove it as you inject 0.5 milliliter of this product using a handheld injector. ¹ No surfactant is required.		
Ivy; cape, German	1.5 – 3	0.75 – 1.5
Jerusalem artichoke	2.3 – 3.75	1.5
Johnsongrass	1.5 – 2.3	0.75
Apply this product when most target plants have reached the boot to head stage of development or before plants have turned brown in the fall. When applied prior to the boot stage, reduced control can result.		
Kikuyu grass	1.5 – 2.3	0.75

PERENNIAL WEEDS RATE TABLE		
Weed Species	Broadcast Rate (quarts/ acre)	Handheld Spray-to-Wet Concentration (% solution)
Knapweed	3	1.5
Apply this product when most target plants have reached the late-bud to flower stage of growth. For enhanced results, apply in late-summer or fall.		
Knotweed; Bohemian, giant, Japanese	3	2
Apply 3 quarts of this product per acre as a broadcast application in 3 to 40 gallons of spray solution with 0.5 to 1 percent by volume of a nonionic surfactant. For application using a backpack sprayer and a spray-to-wet technique, apply a 2-percent solution of this product containing 0.5 to 2 percent by volume of a nonionic surfactant. For enhanced control, do not disturb vegetation in the application area for a minimum of 7 days after application.		
Control can also be achieved by cutting stems cleanly just below the 2nd or 3rd node above the ground and immediately apply 0.36 fluid ounce (10 milliliters) of a 50-percent solution of this product in water into the "well" or remaining internode. Ensure that the upper plant material that was removed is gathered and properly discarded to prevent new plants from propagating from sprouting buds. Use of a bio-barrier, such as cardboard, plywood or plastic sheeting, will help guard against the spread of plant material. The combined total application rate of this product must not exceed 8 quarts per acre. ¹ Control can also be achieved by injecting 5 milliliters of this product per stem into the second or third internode using a handheld injection device. ¹ No surfactant is required.		
Lantana	–	0.75 – 1
Apply this product when most target plants are at or beyond the bloom stage of growth. Use the higher spray solution concentration on plants that have reached the woody stage of growth.		
Lespedeza	2.3 – 3.75	1.5
Loosestrife, purple	2	1 – 1.5
Apply this product when most target plants are at or beyond the bloom stage of growth. Enhanced results can be achieved when application is made during summer or fall months. Fall application must be made before a killing frost.		
Lotus, American	2	0.75
Apply this product when most target plants are at or beyond the bloom stage of growth. Enhanced results can be achieved when application is made during summer or fall months. Fall application must be made before a killing frost. More than one application of this product might be necessary to control re-growth of underground plant parts and seeds.		
Maidencane	3	0.75
More than one application of this product will be needed for control, especially for vegetation partially submerged in water. Allow plants to re-grow to the 7- to 10-leaf stage before making next application.		
Milkweed, common	2.3	1.5
Apply this product when most target plants have reached the late-bud to flower stage of growth.		
Muhly, wirestem	1.5 – 2.3	0.75
Make application when most target plants are at least 8 inches in height (3- to 4-leaf stage of development) and actively growing.		
Mullein, common	2.3 – 3.75	1.5
Napiergrass	2.3 – 3.75	1.5

PERENNIAL WEEDS RATE TABLE		
Weed Species	Broadcast Rate (quarts/ acre)	Handheld Spray-to-Wet Concentration (% solution)
Nightshade, silverleaf	2.3 – 3.75	1.5
Apply 3 to 3.75 quarts of this product per acre as a broadcast application west of the Mississippi River and 2.3 to 3 quarts per acre east of the Mississippi River when most target plants are at or beyond full bloom. Enhanced results can be obtained when application is made in late-summer or fall after berries have formed.		
Nutsedge, purple, yellow	2.3	0.75
Apply this product to control existing nutsedge plants and attached immature nutlets when target plants are in flower or when new nutlets can be found at rhizome tips. Nutlets that have not germinated will not be controlled and will require repeated application of this product for long-term control.		
Orchardgrass	1.5 – 2.3	0.75
Make application when most target plants have reached the boot to head stage of development. When applied prior to the boot stage, less than desirable control could be obtained. In the fall, make application before plants have turned brown.		
Pampas grass	2.3 – 3.75	1.5
Para grass	3	0.75
More than one application of this product will be needed to achieve complete control. Allow plants to re-grow to the 7- to 10-leaf stage before making next application.		
Pepperweed, perennial	3	1.5
Phragmites*	2 – 3.75	0.75 – 1.5
For partial control of phragmites in Florida and the counties of other states bordering the Gulf of Mexico, apply 3.75 quarts of this product per acre as a broadcast application or a 1.5-percent solution using a handheld sprayer. In other areas of the U.S., apply 2 to 3 quarts per acre as a broadcast application or, for partial control, apply a 0.75-percent solution using a handheld sprayer. For enhanced results, make application in late-summer or fall when plants are actively growing and in full bloom. Due to the dense nature of this vegetation (which can prevent good spray coverage) and uneven stages of growth, more than one application of this product might be necessary to achieve control. Visual symptoms of control will be slow to develop.		
Quackgrass	1.5 – 2.3	0.75
Apply this product when most target plants are at least 8 inches in height (3- to 4-leaf stage of development) and actively growing.		
Redvine*	1.5	1.5
Reed, common, giant	3 – 3.75	1.5
For enhanced results make application in late-summer or fall. Control can also be achieved by injecting 5 milliliters of this concentrated product (undiluted) directly into the second or third internode using a handheld injection device. ¹ No surfactant is required.		
Ryegrass, perennial	1.5 – 2.3	0.75
Apply this product when most target plants have reached the boot to head stage of growth. When applied prior to the boot stage, reduced control can result. In the fall, make application before ryegrass turns brown.		

PERENNIAL WEEDS RATE TABLE		
Weed Species	Broadcast Rate (quarts/ acre)	Handheld Spray-to-Wet Concentration (% solution)
Salvinia, giant	3 – 3.75	2
Apply a 2-percent solution of this product containing 0.5 to 2 percent by volume of a nonionic surfactant approved for aquatic use and containing at least 70 percent active ingredient using spray-to-wet technique. For broadcast application, apply 3 to 3.75 quarts of this product per acre in 3 to 40 gallons of spray solution containing 0.1 percent by volume nonionic organosilicone and 0.25 percent nonionic spreader sticker surfactant approved for aquatic use. Allow a minimum of 3 days after application before disturbing vegetation in the application site. This product will not control plants that are completely submerged or have a majority of foliage under water.		
Smartweed, swamp	2.3 – 3.75	1.5
Spatterdock	3	0.75
Make application when most target plants are in full bloom. For enhanced results, apply in the summer or fall.		
Spurge, leafy*	–	1.5
Starthistle, yellow	–	1.5
Sweet potato, wild*	–	1.5
Make application when most target plants are at or beyond the bloom stage of growth. More than one application will be needed to achieve control.		
Thistle, artichoke	1.5 – 2.3	2
Make application when target plants are at or beyond the bud stage of growth.		
Thistle, Canada	1.5 – 2.3	1.5
Make application when target plants are at or beyond the bud stage of growth. Control can also be achieved by stem-injection. Cut 8 to 9 of tallest plants in a clump at bud stage. Push a cavity needle into the stem center and then slowly remove it as you inject 0.5 milliliter of this concentrated product into the stem. ¹ No surfactant required.		
Timothy	1.5 – 2.3	1.5
Make application when most target plants have reached the boot to head stage of development. If application is made prior to the boot stage, reduced control can result. In the fall, make application before plants turn brown.		
Torpedograss*	3 – 3.75	0.75 – 1.5
Apply this product at a lower rate or spray solution concentration within the specified range when torpedograss is growing on terrestrial sites and at a higher rate or concentration within the range when partially submerged under water or growing as a floating mat. Additional applications of this product will be needed to maintain control.		
Trumpet creeper*	1.5 – 2.3	1.5
Tules, common	–	1.5
Make application to target plants at or beyond the seedhead stage of development. Visual symptoms will be slow to appear and might not appear for 3 or more weeks after application.		
Vaseygrass	2.3 – 3.75	1.5
Velvetgrass	2.3 – 3.75	1.5

PERENNIAL WEEDS RATE TABLE		
Weed Species	Broadcast Rate (quarts/ acre)	Handheld Spray-to-Wet Concentration (% solution)
Waterhyacinth	2.5 – 3	0.75 – 1
Make application when target plants are at or beyond the early bloom stage of development. Visual symptoms might require 3 or more weeks after application to appear, with complete necrosis and decomposition not occurring until 60 to 90 days after application. Use a higher application rate within the given range when more rapid visual effects are desired.		
Waterlettuce	–	0.75 – 1
Apply a 1-percent solution of this product in areas of heavy infestation. Enhanced results can be obtained when applied from mid-summer through winter. Application in the spring could require more than one application to achieve control.		
Waterprimrose	–	0.75
Make application to target plants that are at or beyond the bloom stage of growth, but before fall color changes occur. Thorough coverage is necessary for enhanced control.		
Wheatgrass, western	1.5 – 2.3	0.75
Make application when most target plants have reached the boot to head stage of development. Application made prior to the boot stage could result in reduced control. In the fall, make application before plants turn brown.		

* Partial control
¹ When using stem injection, the combined total use of this product must not exceed 8 quarts per acre per year. At 5 milliliters of concentrated (undiluted) product per stem, 8 quarts will treat approximately 1500 stems per acre per year. The number of stems that can be treated per acre will vary depending on the injection volume and the concentration of this product in the application solution.

Other perennials listed on this label – Apply 2.3 to 3.75 quarts of this product per acre as a broadcast application or a 0.75 to 1.5-percent solution using a handheld sprayer.

12.4 Woody Brush, Trees and Vines

Apply this product to brush and trees that are actively growing after full leaf expansion, unless otherwise directed. Use a higher application rate within a given range for larger brush and trees and/or application in areas of dense vegetative growth. For control of vines, apply this product at a higher application rate or spray solution concentration within the given range when target plants have reached the woody stage of growth.

Enhanced control of woody brush and trees is obtained when application is made in late-summer or fall after fruit formation; however, in arid areas, enhanced control can be obtained when application is made in the spring to early-summer when brush and trees are at high moisture content and flowering. Poor control can be expected when this product is applied to drought-stressed brush and trees.

Some autumn color on undesirable deciduous species is acceptable when applying this product to brush and trees in the fall, provided no major leaf drop has occurred. Reduced performance of this product could result if fall application is made following a frost. Symptoms might not appear prior to frost or senescence following fall application.

For enhanced results, allow 7 or more days after application before mowing, cutting, tilling, burning or removal of woody brush, trees and vines from the application site. Additional applications of this product will be needed to control brush and trees regenerating from underground parts or seed.

TANK MIXTURES: This product may be applied at any rate stated on this label in a tank mixture with the following products to increase the spectrum of control of herbaceous weeds, woody brush, trees and vines. For control of herbaceous weeds, apply the tank-mix product at the lower end of the given application rate or spray solution concentration range. For control of dense stands or tough-to-control woody brush, trees and vines, increase

the application rate or spray solution concentration of the tank-mix product towards the higher end of the range. Refer to the individual product labels for approved uses and application rates. Not all tank-mix products listed are labeled for aquatic use.

Arsenal: Arsenal Herbicide Applicators Concentrate; Escort XP, Forestry Garlon 4 Specialty; Forestry Garlon XRT Specialty; Garlon 3A Specialty; Garlon 4 Specialty; Garlon 4 Ultra Specialty; Vastlan Specialty; imazapyr; metsulfuron methyl; triclopyr

Ensure that the proper amount of the Garlon herbicide is thoroughly mixed with water in the spray tank before adding this product.

Cut Stump Application

This product may be used to control re-growth and re-sprouting of woody brush and trees on any site listed on this label.

Cut the woody brush or tree close to the soil or water surface and immediately apply a 50- to 100-percent (undiluted) solution of this product to the freshly-cut surface using an applicator capable of applying this product to the entire cambium. A delay in application could result in reduced performance. For enhanced results, cut the woody brush or tree during period of active growth and full leaf expansion and apply this product. No surfactant is needed for cut stump application.

For control of the tree of heaven (*Ailanthus altissima*), cut the tree close to the soil surface and immediately apply a 50-percent solution of this product (16 fluid ounces per quart of solution) and 10 percent Arsenal herbicide (3 to 4 fluid ounces per quart of solution) in water to the freshly-cut surface.

DO NOT MAKE A CUT STUMP APPLICATION WHEN THE ROOTS OF DESIRABLE WOODY BRUSH OR TREES MAY BE GRAFTED TO THE ROOTS OF THE CUT STUMP, AS INJURY COULD OCCUR IN THE ADJACENT TREES. Some sprouts, stems, or trees can share a common root system. Adjacent trees having a similar age, height and spacing could be an indicator of a shared root system. Whether grafted or shared, injury is likely to occur to adjacent stems or trees when this product is applied to one or more trees sharing common root system.

Woody Brush and Tree Injection and Frill Application

This product may be used to control woody brush and trees listed in this section by injection or frill application on any aquatic and terrestrial site listed on this label.

Inject or apply the equivalent of 1 milliliter (0.04 fluid ounce) of this product for every 2 to 3 inches of trunk diameter at breast height (DBH). If injecting this product into the woody brush or tree, use equipment capable of penetrating into the living plant tissue under the bark. No surfactant is required for direct injection of this product into woody brush and trees.

For frill application, apply a 50 to 95-percent solution of this product in water, with 0.5% or more by volume of a nonionic surfactant, to either a continuous frill around the tree or to cuts evenly spaced around the tree below all branches. As tree diameter increases, enhanced results can be achieved by applying this product to a continuous frill or more closely spaced cuttings. Avoid application techniques that allow this product to run out of the frill or cut areas. In species that freely exude sap, make the frill or cuts at an oblique angle to produce a cupping effect and apply a 95-percent solution of this product with a nonionic surfactant as described above. For enhanced results, make this application during period of active growth and after full leaf expansion.

Modified High-Volume and Low-Volume Backpack Application

For control and partial control of woody bush, trees and vines listed on this label when using a backpack sprayer or other handheld equipment and a directed low-volume foliar application technique, apply a 4 to 8-percent solution of this product containing 0.5 to 1 percent by volume of a nonionic surfactant evenly over the plant crown to cover 50 percent of the upper foliage of undesirable woody brush, trees and vines.

WOODY BRUSH, TREES AND VINES RATE TABLE		
Species	Broadcast Rate (quarts/acre)	Handheld Spray-to- Wet Concentration (% solution)
Alder	2.3 – 3	0.75 – 1.2
Ash*	1.5 – 3.75	0.75 – 1.5
Aspen, quaking	1.5 – 2.3	0.75 – 1.2
Bearclover (Bearmat)*	1.5 – 3.75	0.75 – 1.5
Beech*	1.5 – 3.75	0.75 – 1.5
Birch	1.5	0.75
Blackberry	2.3 – 3	0.75 – 1.2
Blackgum	1.5 – 3.75	0.75 – 1.5
Bracken	1.5 – 3.75	0.75 – 1.5
Broom; French, Scotch	1.5 – 3.75	1.2 – 1.5
Buckwheat, California*	1.5 – 3	0.75 – 1.5
Cascara*	1.5 – 3.75	0.75 – 1.5
Castor bean	1.5 – 3.75	1.5
Also for control, inject 4 milliliters of this concentrated (undiluted) product per plant directly into the lower portion of the main stem using a handheld injection device.* No surfactant is required.		
Catsclaw*	–	1.2 – 1.5
For partial control, apply this product when at least 50 percent of the new leaves are fully developed.		
Ceanothus*	1.5 – 3.75	0.75 – 1.5
Chamise*	1.5 – 3.75	0.75
Cherry; bitter, black, pin	1.5 – 3.75	1 – 1.5
Cottonwood, eastern	1.5 – 3.75	0.75 – 1.5
Coyote brush	2.3 – 3	1.2 – 1.5
For control, apply this product when at least 50 percent of the new leaves are fully developed.		
Cypress; swamp, bald	1.5 – 3.75	0.75 – 1.5
Deerweed	1.5 – 3.75	0.75 – 1.5
Dewberry	2.3 – 3	0.75 – 1.2
Dogwood*	3 – 3.75	1 – 2
Elderberry	1.5	0.75
Elm*	1.5 – 3.75	0.75 – 1.5
Eucalyptus, blue gum	–	1.5
For control of eucalyptus re-sprouts, apply this product using a handheld sprayer when re-sprouts are 6 to 12 feet tall. Ensure complete coverage.		
Gallberry	1.5 – 3.75	0.75 – 1.5
Gorse*	1.5 – 3.75	0.75 – 1.5
Hackberry, western	1.5 – 3.75	0.75 – 1.5
Hasardia*	1.5 – 3	0.75 – 1.5
Hawthorn	1.5 – 2.3	0.75 – 1.2
Hazel	1.5	0.75
Hickory*	3 – 3.75	1 – 2
Honeysuckle	2.3 – 3	0.75 – 1.2
Hornbeam, American*	1.5 – 3.75	0.75 – 1.5
Huckleberry	1.5 – 3.75	0.75 – 1.5
Ivy, poison	3 – 3.75	1.5

WOODY BRUSH, TREES AND VINES RATE TABLE		
Species	Broadcast Rate (quarts/acre)	Handheld Spray-to- Wet Concentration (% solution)
Kudzu	3	1.5
Locust, black*	1.5 – 3	0.75 – 1.5
Madrone resprouts*	–	1.5
Magnolia, sweetbay	1.5 – 3.75	0.75 – 1.5
Manzanita*	1.5 – 3.75	0.75 – 1.5
Maple, red	1 – 3.75	0.75 – 1.2
For control, apply a 0.75- to 1.2-percent solution of this product using a handheld sprayer when leaves are fully developed. For partial control, apply 1 to 3.75 quarts per acre as a broadcast application.		
Maple, sugar	–	0.75 – 1.2
For control, apply this product using a handheld sprayer when at least 50 percent of the new leaves are fully developed.		
Maple, vine*	1.5 – 3.75	0.75 – 1.5
Monkey flower*	1.5 – 3	0.75 – 1.5
Oak; black, white*	1.5 – 3	0.75 – 1.5
Oak; northern pin	1.5 – 3	0.75 – 1.2
For control, apply this product when at least 50 percent of the new leaves are fully developed.		
Oak, poison	3 - 3.75	1.5
Repeat applications might be required to maintain control. Application in the fall must be made before leaves lose green color.		
Oak, post	2.3 – 3	0.75 – 1.2
Oak, red	–	0.75 – 1.2
For control, apply this product using a handheld sprayer when at least 50 percent of the new leaves are fully developed.		
Oak, scrub*	1.5 – 3	0.75 – 1.5
Oak, southern red	1.5 – 3.75	1 – 1.5
Orange, Osage	1.5 – 3.75	0.75 – 1.5
Peppertree, Brazilian (Florida holly)*	1.5 – 3.75	1.5
Persimmon*	1.5 – 3.75	0.75 – 1.5
Pine	1.5 – 3.75	0.75 – 1.5
Poplar, yellow*	1.5 – 3.75	0.75 – 1.5
Prunus	1.5 – 3.75	1 – 1.5
Raspberry	2.3 – 3	0.75 – 1.2
Redbud, eastern	1.5 - 3.75	0.75 - 1.5
Redcedar, eastern	1.5 – 3.75	0.75 – 1.5
Rose, multiflora	1.5	0.75
Make application prior to leaf deterioration by leaf-feeding insects.		
Russian olive*	1.5 – 3.75	0.75 – 1.5
Sage, black	1.5 – 3	0.75
Sage, white*	1.5 – 3	0.75 – 1.5
Sagebrush, California	1.5 – 3	0.75
Salmonberry	1.5	0.75
Saltbush	–	1

WOODY BRUSH, TREES AND VINES RATE TABLE

Species	Broadcast Rate (quarts/acre)	Handheld Spray-to- Wet Concentration (% solution)
Saltcedar*	3 – 3.75	1 – 2
For partial control, apply a 1- to 2-percent solution of this product using a handheld sprayer or 3 to 3.75 quarts per acre as a broadcast application.		
For control, apply a 1- to 1.5-percent solution of this product in a tank-mix with Arsenal herbicide or Arsenal Herbicide Applicators Concentrate using a handheld sprayer. For control using broadcast application, apply 1.5 quarts of this product per acre in a tank-mix with an appropriate rate of Arsenal herbicide or Arsenal Herbicide Applicators Concentrate to plants less than 6 feet tall. To control saltcedar greater than 6 feet tall using broadcast application, apply 3 quarts of this product per acre in a tank-mix with a higher rate of Arsenal herbicide or Arsenal Herbicide Applicators Concentrate.		
Sassafras*	1.5 – 3.75	0.75 – 1.5
Sea Myrtle	—	1
Sourwood*	1.5 – 3.75	0.75 – 1.5
Sumac; laurel, poison, smooth, sugarbush, winged*	1.5 – 3	0.75 – 1.5
Sweetgum	1.5 – 2.3	0.75 – 1.5
Swordfern*	1.5 – 3.75	0.75 – 1.5
Tallowtree, Chinese	—	0.75
Tan oak re-sprouts*	—	1.5
Thimbleberry	1.5	0.75
Tobacco, tree*	1.5 – 3	0.75 – 1.5
Toyon*	—	1.5
Trumpetcreeper	1.5 – 2.3	0.75 – 1.2
Vine maple*	1.5 – 3.75	0.75 – 1.5
Virginia creeper	1.5 – 3.75	0.75 – 1.5
Waxmyrtle, southern*	1.5 – 3.75	1.5
Willow	2.3	0.75
Yerba Santa, California*	—	1.5

* Partial control

Other woody brush and trees listed on this label – For partial control, apply 1.5 to 3.75 quarts of this product per acre as a broadcast application or a 0.75- to 1.5-percent solution using a handheld sprayer and a spray-to-wet application technique.

13.0 LIMIT OF WARRANTY AND LIABILITY

Bayer CropScience LP ("Company") warrants that this product conforms to the chemical description on the label. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Buyer and all users shall use this product only for the purposes of and in accordance with the Complete Directions for Use label ("Directions") and shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

To the extent consistent with applicable law, buyer and all users are responsible for all loss, injuries or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, crop injury or failure of this product to control weed biotypes which develop resistance to glyphosate, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, use and/or application in any manner not explicitly set forth in or inconsistent with the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

This Company does not warrant any product reformulated or repackaged from this product except in accordance with this Company's stewardship requirements and with express written permission from this Company.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Upon opening and using this product, buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement. If terms are not acceptable, return at once unopened.

In case of an emergency involving this product, or for medical assistance, call collect, day or night, 1-800-334-7577.

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EPA Reg. No. 524-343

Packed for:
BAYER CROPSCIENCE LP
800 N. LINDBERGH BLVD.
ST. LOUIS, MISSOURI, 63167 U.S.A.

2D
CODE

161018BV2

883580926201

Roundup® CUSTOM FOR AQUATIC & TERRESTRIAL USE

A broad-spectrum postemergence herbicide for aquatic and industrial, turf, ornamental, forestry, roadside, utility rights-of-way, select crop, and other listed terrestrial weed control.

(For a complete list of aquatic and terrestrial use sites, see the Directions for Use section of the attached labeling.)

ACTIVE INGREDIENT:

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

OTHER INGREDIENTS:..... 46.2%
100.0%

*Contains 648 grams of the active ingredient glyphosate, in the form of its isopropylamine salt per liter, or 5.4 pounds per U.S. gallon, which is equivalent to 480 grams of the acid, glyphosate, per liter or 4.0 pounds per U.S. gallon (39.9% by weight).

EPA Reg. No. 524-343 EPA Est. 524-IA-1

Keep Out of Reach of Children CAUTION

DIRECTIONS FOR USE

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

Not all products listed on this label are registered for use in California.

Check the registration status of each product in California before using.

See Complete Directions for Use attached to this label for complete Agricultural and Non-Agricultural Use Requirements of the Worker Protection Standard, Directions for Use and Limit of Warranty and Liability in English and Spanish.

GROUP	9	HERBICIDE
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STORAGE AND DISPOSAL

Proper pesticide storage and disposal are essential to protect against exposure to people and the environment due to leaks and spills, excess product or waste, and vandalism. Do not allow this product to contaminate water, foodstuffs, feed or seed by storage and disposal.

PESTICIDE STORAGE: STORE ABOVE 5°F (-15°C) TO KEEP PRODUCT FROM CRYSTALLIZING. Crystals will settle to the bottom. If allowed to crystallize, warm to 68°F (20°C) to redissolve and roll or shake container or recirculate contents of larger containers to mix well before using. Store pesticides away from food, pet food, feed, seed, fertilizers, and veterinary supplies. Keep container closed to prevent spills and contamination. See individual container label for additional storage conditions, if any.

PESTICIDE DISPOSAL: To avoid wastes, use all material in the container, including rinsate, by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program. Such programs are often run by state or local governments or by industry. All disposal must be in accordance with applicable federal, state and local regulations and procedures.

CONTAINER HANDLING AND DISPOSAL: Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in this container. Contact your state regulatory agency to determine allowable practices in your state. Triple rinse or pressure rinse (or equivalent) this container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix-tank and continue to drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or mix-tank, or store rinsate for later use or disposal. Continue to drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into application equipment or mix-tank and continue to drain for 10 seconds after the flow begins to drip. Place container so that it can drain directly into application equipment or mix-tank while rinsing, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle into the side of the container and rinse at about 40 PSI for at least 30 seconds. Continue to drain for 10 seconds after the flow begins to drip. Once properly rinsed, some plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest collection site, contact your chemical dealer or Bayer CropScience LP at 1-866-99BAYER (1-866-992-2937). If recycling is not available, dispose of in accordance with federal, state and local regulations and procedures, which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

FOR PRODUCT INFORMATION OR ASSISTANCE USING THIS PRODUCT,
CALL TOLL-FREE, 1-866-99BAYER (1-866-992-2937)

IN CASE OF AN EMERGENCY INVOLVING THIS PRODUCT OR FOR MEDICAL
ASSISTANCE, CALL COLLECT, DAY OR NIGHT, 1-800-334-7577

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Packed for:
BAYER CROPSCIENCE LP
800 N. LINDBERGH BLVD.
ST. LOUIS, MISSOURI 63167 USA



NET 2.5 GAL

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Print Date: 10/02/2020

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Trade name	ROUNDUP CUSTOM® FOR AQUATIC & TERRESTRIAL USE
Product code (UVP)	86738473
SDS Number	102000037603
EPA Registration No.	524-343

Relevant identified uses of the substance or mixture and uses advised against

Use	Herbicide
Restrictions on use	See product label for restrictions.
Information on supplier	
Supplier	Bayer Environmental Science A division of Bayer CropScience LP 5000 Centregreen Way, Suite 400 Cary, NC 27513 USA
Responsible Department	Email: SDSINFO.BCS-NA@bayer.com
Emergency telephone no.	
Emergency Telephone Number (24hr/ 7 days)	1-800-334-7577
Product Information Telephone Number	1-800-331-2867

SECTION 2: HAZARDS IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200

This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

Hazards Not Otherwise Classified (HNOC)

No physical hazards not otherwise classified.
No health hazards not otherwise classified.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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Hazardous Component Name	CAS-No.	Concentration % by weight
Isopropylamine salt of glyphosate	38641-94-0	53.8

SECTION 4: FIRST AID MEASURES

Description of first aid measures

General advice	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
Inhalation	Move 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 physician or poison control center immediately.
Skin contact	Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Call a physician or poison control center immediately.
Eye contact	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.

Most important symptoms and effects, both acute and delayed

Symptoms To date no symptoms are known.

Indication of any immediate medical attention and special treatment needed

Risks This product is not a cholinesterase inhibitor.

Treatment Treatment with atropine and oximes is not indicated. Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable High volume water jet

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Special hazards arising from the substance or mixture	In the event of fire the following may be released: Carbon monoxide (CO), Carbon dioxide (CO ₂), Nitrogen oxides (NO _x), Oxides of phosphorus
Advice for firefighters	
Special protective equipment for firefighters	In the event of fire and/or explosion do not breathe fumes. Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing. Equipment should be thoroughly decontaminated after use.
Further information	Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.
Flash point	does not flash
Auto-ignition temperature	No data available
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Explosivity	Not explosive

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Precautions Use personal protective equipment. Keep unauthorized people away. Avoid contact with spilled product or contaminated surfaces.

Methods and materials for containment and cleaning up

Methods for cleaning up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Keep in suitable, closed containers for disposal. Clean contaminated floors and objects thoroughly, observing environmental regulations.

Additional advice Use personal protective equipment. If the product is accidentally spilled, do not allow to enter soil, waterways or waste water canal. Do not allow product to contact non-target plants.

Reference to other sections Information regarding safe handling, see section 7.
Information regarding personal protective equipment, see section 8.
Information regarding waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

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Advice on safe handling	Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.
Hygiene measures	Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics. Remove Personal Protective Equipment (PPE) immediately after handling this product. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing. Keep working clothes separately. Garments that cannot be cleaned must be destroyed (burnt).
Conditions for safe storage, including any incompatibilities	
Requirements for storage areas and containers	Store in original container. Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Store in a place accessible by authorized persons only. Reacts with galvanised steel or unlined mild steel to produce hydrogen, a highly flammable gas that could explode. Protect from freezing. Partial crystallization may occur on prolonged storage below the minimum storage temperature. Freezing will affect the physical condition but will not damage the material. Thaw and mix before using.
Advice on common storage	Keep away from food, drink and animal feedingstuffs.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

No known occupational limit values.

Exposure controls

Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection

When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.

Hand protection

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
Chemical-resistant gloves (barrier laminate, butyl rubber, nitrile rubber or Viton)
Wash gloves when contaminated. Dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating,

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	drinking, smoking or using the toilet.
Eye protection	Use tightly sealed goggles and face protection.
Skin and body protection	Wear long-sleeved shirt and long pants and shoes plus socks.
General protective measures	Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water. Keep and wash PPE separately from other laundry.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Form	Liquid, clear
Colour	colorless to light yellow or brown
Odour	odourless
Odour Threshold	No data available
pH	4.4 - 4.8 (6.3 %)
Melting point/range	No data available
Boiling Point	No data available
Flash point	does not flash
Flammability	No data available
Auto-ignition temperature	No data available
Minimum ignition energy	Not applicable
Self-accelarating decomposition temperature (SADT)	No data available
Upper explosion limit	Not applicable
Lower explosion limit	Not applicable
Vapour pressure	Not applicable
Evaporation rate	No data available
Relative vapour density	No significant volatility.
Relative density	1.206 (20 °C)
Density	1.21 g/cm ³ (20 °C)
Water solubility	completely soluble
Partition coefficient: n-	Glyphosate: log Pow: -3.2

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octanol/water

Viscosity, dynamic	No data available
Viscosity, kinematic	No data available
Oxidizing properties	No data available
Explosivity	Not explosive
Other information	Further safety related physical-chemical data are not known.

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Thermal decomposition	Stable under normal conditions.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Reacts with galvanised steel or unlined mild steel to produce hydrogen, a highly flammable gas that could explode.
Conditions to avoid	Extremes of temperature and direct sunlight.
Incompatible materials	Galvanised steel, Unlined mild steel
Hazardous decomposition products	No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes	Skin contact, Eye contact, Inhalation
Immediate Effects	
Eye	Not expected to produce significant adverse effects when recommended use instructions are followed.
Skin	Not expected to produce significant adverse effects when recommended use instructions are followed.
Ingestion	Not expected to produce significant adverse effects when recommended use instructions are followed.
Inhalation	Not expected to produce significant adverse effects when recommended use instructions are followed.
Information on toxicological effects	
Acute oral toxicity	LD50 (Rat) > 5,000 mg/kg Test conducted with a similar formulation. No deaths

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Acute inhalation toxicity	LC50 (Rat) > 4.24 mg/l Exposure time: 4 h Determined in the form of liquid aerosol. Highest attainable concentration. No deaths Test conducted with a similar formulation.
Acute dermal toxicity	LD50 (Rabbit) > 5,000 mg/kg Test conducted with a similar formulation. No deaths
Skin corrosion/irritation	No skin irritation (Rabbit) Test conducted with a similar formulation.
Serious eye damage/eye irritation	No eye irritation (Rabbit) Test conducted with a similar formulation.
Respiratory or skin sensitisation	Skin: Non-sensitizing. (Guinea pig) OECD Test Guideline 406, Buehler test Test conducted with a similar formulation.

Assessment STOT Specific target organ toxicity – single exposure

Glyphosate: Based on available data, the classification criteria are not met.

Assessment STOT Specific target organ toxicity – repeated exposure

Glyphosate did not cause specific target organ toxicity in experimental animal studies.

Assessment mutagenicity

Glyphosate was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment carcinogenicity

Glyphosate was not carcinogenic in lifetime feeding studies in rats and mice.
Important comment to IARC Listing: Our expert opinion is that classification as a carcinogen is not warranted.

ACGIH

None.

NTP

None.

IARC

Isopropylamine salt of glyphosate 38641-94-0 Overall evaluation: 2A

OSHA

None.

Assessment toxicity to reproduction

Glyphosate did not cause reproductive toxicity in a two-generation study in rats.

Assessment developmental toxicity

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Glyphosate did not cause developmental toxicity in rats and rabbits.

Aspiration hazard

Based on available data, the classification criteria are not met.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity to fish	LC50 (Oncorhynchus mykiss (rainbow trout)) > 1,000 mg/l static test; Exposure time: 96 h Test conducted with a similar formulation. LC50 (Lepomis macrochirus (Bluegill sunfish)) > 1,000 mg/l static test; Exposure time: 96 h Test conducted with a similar formulation.
Chronic toxicity to fish	Oncorhynchus mykiss (rainbow trout) flow-through test NOEC: ≥ 9.63 mg/l The value mentioned relates to the active ingredient glyphosate.
Toxicity to aquatic invertebrates	EC50 (Daphnia magna (Water flea)) 930 mg/l static test; Exposure time: 48 h Test conducted with a similar formulation.
Chronic toxicity to aquatic invertebrates	EC50 (Daphnia magna (Water flea)): 12.5 mg/l Exposure time: 21 d The value mentioned relates to the active ingredient glyphosate.
Toxicity to aquatic plants	EbC50 (Raphidocelis subcapitata (freshwater green alga)) 72.9 mg/l static test; Exposure time: 72 h The value mentioned relates to the active ingredient glyphosate. NOEC (Raphidocelis subcapitata (freshwater green alga)) 26.4 mg/l static test; Exposure time: 72 h The value mentioned relates to the active ingredient glyphosate.
Biodegradability	Glyphosate: Not rapidly biodegradable
Koc	Glyphosate: Koc: 6920
Bioaccumulation	Glyphosate: Does not bioaccumulate.
Mobility in soil	Glyphosate: Immobile in soil
Results of PBT and vPvB assessment	
PBT and vPvB assessment	Glyphosate: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).
Additional ecological	No further ecological information is available.

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information

Environmental precautions Apply this product as specified on the label.
Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark.
Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water.
Retain and dispose of contaminated wash water.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Product It is best to use all of the product in accordance with label directions. If it is necessary to dispose of unused product, please follow container label instructions and applicable local guidelines.
Do not contaminate water, food, or feed by disposal.
Follow all local/regional/national/international regulations.

Contaminated packaging Follow advice on product label and/or leaflet.
Do not re-use empty containers.
Triple rinse containers.
Puncture container to avoid re-use.
Completely empty container into application equipment, then dispose of empty container in a sanitary landfill, by incineration or by other procedures approved by state/provincial and local authorities.
If burned, stay out of smoke.

RCRA Information Characterization and proper disposal of this material as a special or hazardous waste is dependent upon Federal, State and local laws and are the user's responsibility. RCRA classification may apply.

SECTION 14: TRANSPORT INFORMATION

According to national and international transport regulations this material is not classified as dangerous goods / hazardous material.

SECTION 15: REGULATORY INFORMATION

EPA Registration No. 524-343

US Federal Regulations

TSCA list

Water

7732-18-5

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US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

No export notification needs to be made.

SARA Title III - Section 302 - Notification and Information

Not applicable.

SARA Title III - Section 313 - Toxic Chemical Release Reporting

None.

US States Regulatory Reporting

CA Prop65

This product does not contain any substances known to the State of California to cause cancer.

This product does not contain any substances known to the State of California to cause reproductive harm.

US State Right-To-Know Ingredients

None.

Environmental

CERCLA

None.

Clean Water Section 307(a)(1)

None.

Safe Drinking Water Act Maximum Contaminant Levels

None.

EPA/FIFRA Information:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information required on the pesticide label:

Signal word: Caution!

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms

49CFR	Code of Federal Regulations, Title 49
ACGIH	US. ACGIH Threshold Limit Values
ATE	Acute toxicity estimate
CAS-Nr.	Chemical Abstracts Service number
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods

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N.O.S.	Not otherwise specified
NTP	US. National Toxicology Program (NTP) Report on Carcinogens
OECD	Organization for Economic Co-operation and Development
TDG	Transportation of Dangerous Goods
TWA	Time weighted average
UN	United Nations
WHO	World health organisation

NFPA 704 (National Fire Protection Association):

Health - 0 Flammability - 1 Instability - 1 Others - none

HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)

Health - 0 Flammability - 1 Physical Hazard - 1 PPE -

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason for Revision: New Safety Data Sheet.

Revision Date: 09/25/2020

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