

Notice of Weed Control Application

Date of Application: October 9, 2026 thru October 30, 2026

Location: Manorwood Mini-Park, Glenmere Mini-Park, Chardonnay Hills Mini-Park, and Chardonnay Ridge Mini-Park (All SNWA Designated Non-Functional Turf)

Reason for Application: Tall Fescue Herbicide Treatment for Killing All Existing Turf for Turf Conversion to Desert Landscaping per SNWA (Two Applications 2-3 Weeks Apart)

Product Manufacturer Name: Round Up Pro Concentrate Herbicide

- EPA registration no. 524-529
- Active ingredients: Glyphosate
- Signal word: Caution
- Precautionary statement: Harmful if swallowed or inhaled. Causes eye irritation.

Product Manufacturer Name: Pendulum Aqua Cap

- EPA registration no. 241-416
- Active ingredients: pendimethalin: N-(1-ethylpropyl)-3,4-dimethyl-2,6-dinitrobenzenamine
- Signal word: Caution
- Precautionary statement: Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing

Product Manufacturer Name: Induce

- EPA registration no. N/A
- Active ingredients: Alkyl Aryl Polyoxylkane ethers, alkanolamides, dimethyl siloxane, and Free Fatty Acids
- Signal word: Warning

-Precautionary statement: May be harmful if swallowed. May be harmful in contact with skin. Causes serious eye irritation. Causes skin irritation.

***No applications within 25 feet of playgrounds**

***Product Labels and Safety Data Sheets Follow**

***Dates are subject to change due to weather**

ATTENTION:

This specimen label is provided for general information only.

- This pesticide product may not yet be available or approved for sale or use in your area.
- It is your responsibility to follow all Federal, state and local laws and regulations regarding the use of pesticides.
- Before using any pesticide, be sure the intended use is approved in your state or locality.
- Your state or locality may require additional precautions and instructions for use of this product that are not included here.
- Monsanto does not guarantee the completeness or accuracy of this specimen label. The information found in this label may differ from the information found on the product label. You must have the EPA approved labeling with you at the time of use and must read and follow all label directions.
- You should not base any use of a similar product on the precautions, instructions for use or other information you find here.
- Always follow the precautions and instructions for use on the label of the pesticide you are using.

2120313-23



The complete broad-spectrum postemergence professional herbicide for industrial, turf and ornamental weed control.

Complete Directions for Use

AVOID CONTACT OF HERBICIDE WITH FOLIAGE, STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES BECAUSE SEVERE INJURY OR DESTRUCTION IS LIKELY TO RESULT.

GROUP 9 HERBICIDE

EPA Reg. No. 524-529

2010-1

Read the entire label before using this product.

Use only according to label instructions.

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

Read the "LIMIT OF WARRANTY AND LIABILITY" statement at the end of the label before buying or using. Terms are not acceptable return at once unopened.

THIS IS AN END-USE PRODUCT. MONSANTO DOES NOT INTEND AND HAS NOT REGISTERED IT FOR REFORMULATION. SEE INDIVIDUAL CONTAINER LABEL FOR REPACKAGING LIMITATIONS.

1.0 INGREDIENT

ACTIVE INGREDIENT

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

50.2 %
45.4 %
100.0 %

OTHER INGREDIENTS (including 1.3% surfactant)

*Contains 600 grams per liter or 5 pounds per U.S. gallon of the active ingredient glycosate in the form of its isopropylamine salt. Equivalent to 445 grams per liter or 3.7 pounds per U.S. gallon of the acid glycosate.

This product is protected by U.S. Patent No. 4,405,631. Other patents pending. No license granted under any non-U.S. patent(s).

2.0 IMPORTANT PHONE NUMBERS

1. FOR PRODUCT INFORMATION OR ASSISTANCE IN USING THIS PRODUCT
CALL TOLL-FREE

1-800-332-3111

2. IN CASE OF AN EMERGENCY INVOLVING THIS PRODUCT OR FOR MEDICAL ASSISTANCE,
CALL COLLECT DAY OR NIGHT

(314)-694-4000

3.0 PRECAUTIONARY STATEMENTS

3.1 Hazards to Humans and Domestic Animals

Keep out of reach of children.

CAUTION!

CAUSES MODERATE EYE IRRITATION

Avoid contact with eyes or clothing.

FIRST AID: Call a poison control center or doctor for treatment advice.

IF IN EYES:

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.

- Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

- You may also contact (314) 694-4000 collect day or night, for emergency medical treatment information.

- This product is identified as Roundup PRO® Concentrate Herbicide. EPA Registration No. 524-529.

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

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

When handlers use closed systems, enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240 (d) (1-5)), the handler PPE requirements may be reduced or modified as specified in the WPS.

IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for applicators and other handlers, and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

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

Do not apply directly to water, to areas where surface waters are present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

3.3 Physical or Chemical Hazards

Spray solutions of this product can be mixed, stored and applied using only 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 may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lit cigar or other ignition source.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. This product can only be used in accordance with the Directions for Use on this label or in separately published Monsanto Supplemental Labeling. Supplemental Labeling may be found on the Internet at www.agrian.com, www.cdms.net or www.greenbook.net or obtained by contacting your Authorized Monsanto Retailer or Monsanto Company 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 other, 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 (40 CFR Part 170) for agricultural pesticides. 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 or disposal.

PESTICIDE STORAGE: Store pesticides away from food, pet food, feed, seed, fertilizers and veterinary supplies. Keep container closed to prevent spills and contamination.

PESTICIDE DISPOSAL: To avoid wastes, use all material in this container, including rinsate, by application in accordance with 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 procedures.

CONTAINER DISPOSAL:

(FOR RIGID PLASTIC 2.5 GAL CONTAINERS OR OTHERS < 5 GAL)

Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinstate). 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.

CONTAINER HANDLING: Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Once cleaned, some plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or Monsanto at 1-800-768-6387. If recycling is not available, puncture and dispose of in a sanitary landfill.

(FOR RIGID PLASTIC 30 GAL CONTAINERS OR OTHERS > 5 GAL)

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinstate). 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.

CONTAINER HANDLING: Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Top container off. It is to be filled to allow and force swirling at least one revolution for 30 seconds. Stand the container upright and bottom for 30 seconds. Turn the container over and top for 30 seconds and turn for 30 seconds. Turn the container upright and top for 30 seconds and turn for 30 seconds. Turn the container upside down over application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Once cleaned, some plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or Monsanto at 1-800-768-6387. If recycling is not available, puncture and dispose of in a sanitary landfill.

(CONTAINER LABEL LANGUAGE FOR TRANSPORT VEHICLES AS DEFINED IN 40 CFR §156.3)

CONTAINER DISPOSAL: Empty container retains vapor and product residue. Observe all precautions stated on this label until the container is cleaned, reconditioned or destroyed.

CONTAINER HANDLING: Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions and worn-out threads and closures. Clean thoroughly before reuse for transportation of a material of different composition or before returning this transport vehicle from service.

5.0 GENERAL INFORMATION

Product Description: This product is a postemergence, systemic herbicide with root residual activity. It gives broad-spectrum control of many annual weeds, perennial weeds, woody brush and trees. It is formulated as a water-soluble liquid containing surfactant.

Time to Symptoms: This product moves through the plant from the point of foliage contact to and into the root system. Visible effects on most annual weeds occur within 2 to 3 days, but on most perennial weeds may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow activity of this product and delay development of visual symptoms. Visible effects are a gradual wilting and yellowing of the plant which advances to complete browning of above-ground growth and deterioration of underground plant parts.

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

Cultural Considerations: Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed or cut, and have not been allowed to regrow to the seed head stage for treatment.

Rainfastness: Heavy rainfall soon after application may wash this product off of the foliage and a repeat application may be required for adequate control.

No Soil Activity: Weeds must be emerged at the time of application to be controlled by this product. Weeds germinating from seed after application will not be controlled. Unemerged plants arising from unattached underground rhizomes or root stocks of perennials will not be affected by the herbicide.

Tank Mixing: This product does not provide residual weed control. For subsequent residual weed control, follow a label-approved herbicide program. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used. Use according to the most restrictive precautionary statements for each product in the mixture.

When this label lists a tank mixture with a general active ingredient such as dicamba 2,4-D or dicamba, the user is responsible for ensuring that the mixture product's label allows the specific application.

Buyer and all users are responsible for all loss or damage in connection with the use or handling of mixtures of this product with herbicides or other materials that are not expressly listed in this label. Mixing this product with herbicides or other materials not listed on this label may result in reduced performance.

Maximum Application Rates: The maximum application or use rates stated throughout this label are given in units of volume (fluid ounces or quart) of this product per acre. However, the maximum allowed 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 as tank mixtures, 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.

Control as otherwise directed. The combined total of all treatments must not exceed 9.6 pounds of this product (8 pounds of glyphosate acid) per acre per year.

ATTENTION

AVOID CONTACT OF HERBICIDE WITH FLUORESCENT EXPOSED WOOD, ROOTS OR FRUIT OF CROPS, DECIDUOUS PLANTS AND TREES, BECAUSE SEVERE INJURY OR DESTRUCTION MAY RESULT.

AVOID USE OF EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.

Do not allow the herbicide solution to fall, drip, or seep on desirable vegetation. Accidental contact of this product can cause severe damage or destruction to the crop plant or other areas on which treatment was not intended. This herbicide is highly effective when applied to the underside of leaves when wind velocity is low and wind velocity increases when wind direction is constantly changing or when there are other meteorological conditions that favor spray drift. After working, wash your hands of this herbicide before that

will result in splatter or fine particles (mist) which are likely to drift, AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE

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

5.1 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 mode of action classification system of the Weed Science Society of America. Any weed population may contain plants naturally resistant to Group 9 herbicides. Weed species resistant to Group 9 herbicides may be effectively managed utilizing another herbicide from a different Group or using other cultural or mechanical practices.

To minimize the occurrence of glyphosate-resistant biotypes observe the following general weed management recommendations:

- Scout your application site before and after herbicide applications.
- Control weeds early when they are relatively small.
- Incorporate other herbicides and cultural or mechanical practices as part of your weed control system where appropriate.
- Use the application rate for the most difficult weed in the site. Avoid tank-mixtures with other herbicides that reduce this product's efficacy (through antagonism) or with sites that encourage rates of this product below those specified on this label.
- Control weed escapes and prevent weeds from setting seeds.
- Clean equipment before moving from site to site to minimize spread of weed seeds.
- Use new commercial seed as free of weed seed as possible.
- Report any incidence of repeated non-performance of this product on a particular weed to your Monsanto representative, local retailer or county extension agent.

5.2 Management Recommendations for Glyphosate-Resistant Weed Biotypes

NOTE: Appropriate testing is critical in order to confirm weed resistance to glyphosate. Call 1-800-ROUNUP (1-800-758-6367) or contact your Monsanto representative to determine if resistance in any particular weed biotype has been confirmed in your area or visit www.weedresistancemanagement.com or www.weedscience.org.

Directions for the control of biotypes confirmed to be resistant to glyphosate are made available on separately published supplemental labeling or Fact Sheets for this product and may be obtained from your local retailer or Monsanto representative.

Since the occurrence of new glyphosate-resistant weeds cannot be determined until after product use and resulting confirmation, Monsanto Company is not responsible for any losses that may result from the failure of this product to control glyphosate-resistant weed biotypes.

Follow good weed management practices to avoid the spread of confirmed resistant biotypes.

- If a naturally occurring resistant biotype is present at your site, this product may be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control.
- Cultural and mechanical control practices may also be used as appropriate.
- Scout/inspect sites after herbicide applications and control escapes of resistant biotypes before they set seed.
- Thoroughly clean equipment before leaving sites known to contain resistant biotypes.

6.0 MIXING

Spray solutions of this product should be mixed, stored and applied using only clean stainless steel, fiberglass, plastic or plastic-lined steel containers. Use caution to avoid splashing back into the carrier source. Use approved anti-back-siphoning devices where required by state or local regulations.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR RUNDUP® FORMS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT GALVANIZED STEEL) CONTAINERS OR SPRAY TANKS.

Clean spray or parts mixed only after using this product by thoroughly flushing with water.

6.1 Mixing with Water

NOTE: PRODUCT PERFORMANCE MAY BE REDUCED IF WATER CONTAINING SOIL SEDIMENT IS USED. **DO NOT MIX OR APPLY WITH WATER FROM PONDS AND DITCHES THAT IS HIGHLY MUDDY OR MURKY.**

This product mixes readily with clean water. Mix spray solutions of this product as follows: Begin filling the mixing tank or spray tank with the required amount of water. Add the labeled amount of this product near the end of the filling process and mix gently. Use caution to avoid splashing back into the carrier source. Use approved anti-back-siphoning devices where required by state or local regulations. During mixing and application, foaming of the spray solution may occur to prevent or minimize foam, avoid the use of mechanical agitators. terminate use of this product if the foaming of the tank and/or nozzle use an approved anti-foam or defoaming agent.

6.2 Tank Mixing

This product does not provide residual weed control. This product may be tank-mixed with other herbicides to provide residual weed control, a broader weed control spectrum or an alternate mode of action. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used. Use according to the most restrictive precautionary statements for each product in the mixture.

When this label lists a tank mixture with a generic active ingredient such as dicamba, atrazine, 2,4-D, or dicamba the user is responsible for ensuring that the specific application being made is included on the label of the specific product being used in the tank mixture. 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 application timing restrictions, soil restrictions and use according to the most restrictive precautionary statements for each product in the tank mixture.

Keep by-pass line on or near the bottom of the tank to minimize foaming. Screen size in nozzle or line strainers should be no finer than 50-mesh.

Always predetermine the compatibility of labeled tank mixtures of this product with water carrier by mixing small proportional quantities in advance. Ensure that the specific tank mixture product is registered for application at the desired site.

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

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 application timing restrictions, soil restrictions, minimum re-mowing interval and rotational guidelines. Use according to the most restrictive precautionary statements for each product in the tank mixture.

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

6.3 Mixing for Hand-Held Sprayers

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

Spray Solution

Amount of Roundup PRO Concentrate Herbicide

Desired Volume	0.4%	0.8%	1.2%	1.6%	4.0%	8.0%
1 Gallon	0.5 oz	1.0 oz	1.5 oz	2.1 oz	5.2 oz	10.5 oz
25 Gallons	13.0 oz	26.0 oz	38.0 oz	52.0 oz	130.0 oz	260.0 oz
100 Gallons	52.0 oz	104.0 oz	156.0 oz	208.0 oz	520.0 oz	1040.0 oz

2 tablespoons = 1 fluid ounce

For use in backpack, knapsack or pump-up sprayers, it is suggested that the required amount of this product be mixed with water in a larger container and sprayed with the mixed solution.

6.4 Colorants or Dyes

Colorants or marking dyes may be added to spray solutions of this product; however they can reduce product performance, especially at lower rates or dilution. Use colorants or dyes according to the manufacturer's directions.

7.0 APPLICATION EQUIPMENT AND TECHNIQUES

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

APPLY SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES.

7.1 Aerial Equipment

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER THE CONDITIONS SPECIFIED WITHIN THIS LABEL.

For aerial broadcast applications, consult the appropriate label. Use this product at the rate of 0.8 to 1.6 quarts per acre for annual weeds, 1.6 to 4 quarts per acre for perennial weeds and 2 to 3 quarts per acre for woody shrubs and trees. Use the spray solution of this herbicide in 1 to 25 gallons of water per acre. When used according to label directions, this product will give control or partial control of broadleaf weeds, woody shrubs and trees listed in the WEEDS CONTROLLED section of this label.

FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO THE FEDERAL GOVERNMENT LABELING FOR AERIAL APPLICATIONS OF THIS PRODUCT IN THAT STATE FOR SPECIFIC INSTRUCTIONS, RESTRICTIONS AND REQUIREMENTS. This product plus dicamba tank mixtures may not be applied by air in California.

When tank-mixing this product with 2,4-D, only 2,4-D amine formulations may be used for aerial application in California. Tank mixtures with 2,4-D amine formulations may be applied by air in California for "allow and reduced tillage systems" and for alfalfa and pasture renovation applications only.

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

Avoid direct application to any body of water.

Drift reduction additives may be used. When a drift reduction additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

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

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

SPRAY DRIFT MANAGEMENT

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

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

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.

AERIAL SPRAY DRIFT MANAGEMENT

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops:

1. The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they should be observed.

Importance of droplet size

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

Controlling droplet size

- **Volume:** Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with the higher rated flows produce larger droplets.
- **Pressure:** Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of nozzles:** Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle orientation:** Orienting nozzles so that the spray is released backwards, parallel to the airstream, will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- **Nozzle type:** Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.
- **Boom Length:** For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.
- **Application Height:** Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces the exposure of the droplets to evaporation and wind.

Swath Adjustment

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

Wind

Drift potential is lowest between wind speeds of 2 to 10 mph, but may, however, vary. Factors including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 miles per hour due to variable wind direction and high drift potential. **NOTE:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect drift.

Temperature and Humidity

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

Temperature Inversions

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas

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

7.2 Ground Broadcast Equipment

For broadcast ground applications, unless otherwise specified use this product at the rate of 0.8 to 1.6 quarts per acre for annual weeds, 1.5 to 4 quarts per acre for perennial weeds and 4 to 8 quarts per acre for woody brush and trees. When used according to label directions, this product will give control or partial control of herbaceous weeds, woody brush and trees listed in the **WEEDS CONTROLLED** section of this label.

Use the labeled rates of this product in 3 to 40 gallons of water per acre as a broadcast spray unless otherwise specified. As density of weeds increases, spray volume should be increased within the specified range to ensure complete coverage. Carefully select proper nozzles to avoid spraying a fine mist. For best results with ground application equipment use flat-fan nozzles. Check for even distribution of spray droplets.

7.3 Backpack or Hand-Held Equipment

Apply to foliage of vegetation to be controlled. For applications made on a spray-to-wet basis, spray coverage should be uniform and complete. Do not spray to the point of runoff. Use coarse sprays only.

For control of weeds listed in the Annual Weeds section of **WEEDS CONTROLLED**, apply a 1.4 percent solution of this product to weeds less than 6 inches in height or runner length for annual weeds over 6 inches tall, or unless otherwise specified, use a 0.8 percent solution. Apply prior to seedhead formation in grass or weed formation in broadleaf weeds.

For best results, use a 1.6 percent solution on harder-to-control perennials, such as Bermudagrass, dock, field bindweed, hemp dogbane, milkweed and Canada thistle.

For low volume directed spray applications, use a 1 to 8 percent solution of this product for control or partial control of annual weeds, perennial weeds, or woody brush and trees. Spray coverage should be uniform with at least 50 percent of the foliage contacted. Coverage of the top one-half of the plant is important for best results. To ensure adequate spray coverage, spray both sides of large or tall woody brush and trees when foliage is thick and dense, or where there are multiple growths.

7.4 Selective Equipment

This product may be applied through recirculating spray systems, shielded applicators, rounded sprayers, wiper applicators or sponge bars after dilution and thorough mixing with water to listed weeds growing in any non-crop site specified on this label.

A recirculating spray system directs the spray solution into weeds growing above desirable vegetation while spray solution not intercepted by weeds is collected and returned to the spray tank for reuse.

AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION AS SERIOUS INJURY OR DEATH IS LIKELY TO OCCUR.

Application equipment used above desired vegetation should be adjusted so that the lowest spray stream or wiper contact point is at least 2 inches above the desirable vegetation. Droplets mist, foam or splatter of the herbicide solution settling on desirable vegetation is likely to result in phytotoxication, burning or desiccation.

Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in clumps, severe infestations or when the height of the weeds varies so that not all weeds are contacted. In these instances, repeat treatment may be necessary.

Shielded and Hooded Applicators

A shielded or hooded applicator directs the herbicide solution onto weeds while shielding desirable vegetation from the herbicide.

Use nozzles that provide uniform coverage within the treated area. Keep shields on these sprayers adjusted to protect desirable vegetation. **EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION.**

Wiper Applicators and Sponge Bars

A wiper or sponge applicator applies the herbicide solution to weeds by wiping the weed with an absorbent material containing the herbicide solution.

Equipment must be designed, maintained and operated to prevent the herbicide solution from contacting desirable vegetation. Operate this equipment at ground speeds no greater than 5 miles per hour. Performance may be improved by reducing speed in areas of heavy weed infestations to ensure adequate water saturation. Better results may be obtained if 2 applications are made in opposite directions.

Avoid leakage or dripping onto desirable vegetation. Adjust height of applicator to ensure adequate contact with weeds. Keep wiping surfaces clean. Be aware that, on sloping ground, the herbicide solution may migrate, causing dripping on the lower end and drying of the wicks on the upper end of a wiper applicator.

Do not use wiper equipment when weeds are wet.

Mix only the amount of solution to be used during a 1-day period, as reduced activity may result from use of leftover solutions. Clean wiper pads immediately after using this product by thoroughly flushing with water.

For Rope or Sponge Wick Applicators: Solutions ranging from 33 to 75 percent of this product in water may be used.

For Porous-Plastic Applicators and Pressure-Feed Systems: Solutions ranging from 33 to 100 percent of this product in water may be used.

When applied as directed, this product **CONTROL**s the following weeds:

Corn Johnstee	Sicklepod
Paricou Texas	Spurshneecles
Eye common	Stachur bristly
Cnateriane	

When applied as directed, this product **SUPPRESSES** the following weeds:

Saggarweed flowers	Ragweed common
Bermudagrass	Ragweed giant
Saggarweed	Chutgrass
Tagelweed	Chutlover
Galtnagras	Thistle Canada
Johnstee	Thistle musk
Yolkweed	Vaseygrass
Thistlehead yellow	Velvetleaf
Ragweed hybrid	

7.5 Injection Systems

This product may be used in aerial or ground injection spray systems. It may be used as a liquid concentrate or diluted prior to injecting into the spray stream. Do not mix this product with the undiluted concentrate of other products when using injection systems, unless specifically instructed.

7.6 CDA Equipment

The rate of this product applied per acre by controlled droplet application (CDA) equipment must not be less than the amount specified in this label when applied by conventional ground equipment. For vehicle-mounted CDA equipment, apply 3 to 15 gallons of water per acre.

CDA equipment produces a spray pattern which is not easily visible. From a tree, mist be exercised to avoid spray or drift contacting the foliage or any other green tissue of desirable vegetation, as damage or destruction is likely to result.

8.0 SITE AND USE INSTRUCTIONS

This product may be used in non-crop areas such as airports, apartment complexes, commercial sites, picnic parks, driveways, dry berms, dry ditches, dry canals, fence rows, golf courses, greenhouses, industrial sites, landscape areas, lawns, roads, trees, municipal sites, natural areas, office complexes, ornamentals, parks, parking areas, pastures, petroleum tank farms and pumping, distillation, railroads, range and recreation areas, residential areas, rights-of-way, roadsides, schools, shadehouses, sports complexes, storage areas, substations, utility areas, utility sites, waste areas and wildlife management areas.

This product may also be used in non-crop areas such as Christmas tree farms, golf courses, seed or fruit seed farms.

Unless otherwise specified, applications may be made to control any weed listed in the **WEEDS CONTROLLED** section of this label.

8.1 Cut Stumps

Cut stump treatment may be made in any area listed on this label. This product will control many types of woody brush and tree species. Apply this product using portable equipment to ensure coverage of the entire circumference. Cut trees or stumps close to the soil surface. Apply a 50 to 100 percent solution of this product to the freshly cut surface immediately after cutting. Delay in application may result in reduced performance. For best results, applications should be made during periods of active growth and full leaf expansion.

DO NOT MAKE CUT STUMP APPLICATIONS WHEN THE ROOTS OF DESIRABLE WOODY BRUSH OR TREES MAY BE DAMAGED TO THE POINT WHERE THE CUT STUMP COMES BACK. Many trees or shrubs may share the same root system. Adjacent trees having a similar height and similar soil requirements may be damaged or killed if a herbicide

is applied to non-treated stems/trees when one or more trees sharing common roots are treated.

8.2 Forestry Site Preparation

This product may be used for the control or partial control of woody brush, trees and herbaceous weeds in forestry or in preparing or establishing wildlife openings within these sites and maintaining logging roads.

This product may be used in site preparation prior to planting any tree species, including Christmas trees, eucalyptus, hybrid tree cultivars and silvicultural nursery sites.

Refer to the WEEDS CONTROLLED section of this label for specific application rates and instructions. Use higher rates of this product within the specified range for control or partial control of woody brush, trees and hard-to-control perennial herbaceous weeds. For best results, apply to actively growing woody brush and trees after full leaf expansion and before full color and leaf drop. Increase rates within the specified range for control of perennial herbaceous weeds any time after emergence and before seedheads, flowers or berries appear.

Use the lower rates of this product within the labeled range for control of annual herbaceous weeds and actively growing perennial herbaceous weeds after seedheads, flowers or berries appear. Apply to the foliage of actively growing annual herbaceous weeds any time after emergence.

This product has no herbicidal or residual activity in the soil.

Unless otherwise directed, do not apply this product as an over-the-top broadcast spray for forestry conifer or hardwood release.

TANK MIXTURES: Tank mixtures of this product may be used to increase the spectrum of vegetation controlled. This product may be tank mixed with the following products only if the specific product is registered for use on the target site. Refer to these product labels for source, rates and application rates. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used. Use according to the most restrictive precautionary statements for each product in the mixture.

NOTE: For forestry site preparation, make sure the tank mix product is approved for use prior to planting the desired species. Observe planting interval restrictions.

This product may be used in a tank mix with the following products for forestry site preparation:

Arsenal Applicators Concentrate	Garlon 3A
Chopper	Garlon 4
Escort	Dust
Escort XP	Dust XP

For control of herbaceous weeds, use the lower labeled tank mixture rates. For control of dense stands or tough-to-control woody brush and trees, use the higher labeled rates.

8.3 Non-Crop Areas and Industrial Sites

Use in areas such as airports, apartment complexes, Christmas tree farms, commercial sites, Conservation Reserve Program (CRP) areas, dry berms, driveways, dry ditches, dry canals, fence rows, golf courses, greenhouses, industrial sites, landscape areas, lawns, roads, trees, municipal sites, natural areas, office complexes, ornamentals, parks, manufacturing sites, petroleum tank farms and pumping, distillation, railroads, range and recreation areas, residential areas, rights-of-way, roadsides, schools, shadehouses, sports complexes, storage areas, substations, utility areas, utility sites, warehouse areas and wildlife management areas.

General Weed Control, Trim-and-Edge and Bare Ground

This product may be used in general non-crop and non-food crop areas. It may be applied with any application equipment described in this label. This product may be used to trim-and-edge around objects in non-crop areas for treatment of unwanted vegetation and to eliminate unwanted weeds growing in established shrub beds or ornamental plantings. This product may be used prior to planting an area to ornamentals, flowers, turfgrass and/or seed, or prior to laying asphalt or beginning construction projects.

Repeated applications of this product may be used as weeds emerge to maintain bare ground.

TANK MIXTURES: This product may be tank mixed with the following products or blends that the specific product is registered for use on the target site. Refer to these product labels for approved sites, the application rates. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used. Use according to the most restrictive precautionary statements for each product in the mixture.

For use in areas such as ensuring that the mixture product is labeled for the intended application when tank mixing with a general active ingredient, consult the following:

2,4-D	Gallery 75 DF	Forlifer 50 WP
Arsenal	Garlon 3A	Garlon 3C
Chopper	Garlon 4	Garlon 4S
Danva	Dos 2XL	Garlon WDG
Barricade 65WG	Fluorox 1.5F	Imazapyr
Glufosinate	Dust	Telar DF
Glufosinate	Dust XP	Transline
Escort	Quinmer	
Escort XP	Quinmer 200	
	Quinmer 200	

Tank mixtures with products containing this glyphosate ingredient may be made provided the specific product is registered for this use.

When applied as a tank mixture for bare ground, this product provides control of the emerged annual weeds and control or partial control of emerged perennial weeds: woody brush and trees.

For control or partial control of the following perennial weeds, apply 0.8 to 1.6 quarts of this product plus 2 to 4 ounces of Quixt XP per acre:

Banagrass	Deck, curly	Poorpe
Bermudagrass	Decennial	Quackgrass
Broomsedge	Fescue, tall	Vaseygrass
Gallisgrass	Johnsongrass	Verain, blue

Chemical Mowing - Perennials

This product will suppress perennial grasses listed in this section to serve as a substitute for mowing. Use 6.4 fluid ounces of this product per acre when treating tall fescue, fine fescue, orchardgrass, quackgrass, or reed canarygrass covers. Use 5 fluid ounces of this product per acre when treating Kentucky bluegrass. Apply treatments in 13 to 40 gallons of spray solution per acre.

Use only in areas where some temporary injury or discoloration of perennial grasses can be tolerated.

Chemical Mowing - Annuals

For growth suppression of some annual grasses, such as annual ryegrass, wild barley, and wild oats growing in pasture, turf, or road-sides or other industrial areas, apply 3 to 4 fluid ounces of this product in 10 to 40 gallons of spray solution per acre. Application should be made when annual grasses are actively growing and before the seedheads are in the final stage of development. Treatments may cause injury to the desired grasses.

Dormant Turfgrass

This product may be used to control or suppress many winter annual weeds and tall fescue for effective release of dormant Bermudagrass and bahagrass turf. Treat only when turf is dormant and prior to spring greenup.

Apply 6.4 to 13 fluid ounces of this product per acre. Apply the label rates in 19 to 40 gallons of water per acre. Use only in areas where Bermudagrass or bahagrass are desirable ground covers and where some temporary injury or discoloration can be tolerated.

Treatments in excess of 13 fluid ounces per acre may result in injury or delayed greenup in highly maintained areas, such as golf courses and lawns. DO NOT apply tank mixtures of this product plus Quixt XP in highly maintained turfgrass areas. For further uses, refer to the Roadside section of this label, which gives rates for dormant Bermudagrass and bahagrass treatments.

Actively Growing Bermudagrass

This product may be used to control or partially control many annual and perennial weeds for effective release of actively growing Bermudagrass. DO NOT apply more than 13 fluid ounces of this product per acre in highly maintained turfgrass areas. DO NOT apply tank mixtures of this product plus Quixt XP in highly maintained turfgrass areas. For further uses, refer to the Roadside section of this label, which gives rates for actively growing Bermudagrass treatments. Use only in areas where some temporary injury or discoloration can be tolerated.

Turfgrass Renovation, Seed, or Sod Production

This product controls most existing vegetation prior to renovating turfgrass areas or establishing turfgrass grown for seed or sod. For maximum control of existing vegetation, delay planting or sodding to determine if any regrowth from escaped underground plant parts occurs. Where repeat treatments are necessary, sufficient regrowth must be obtained prior to application. For warm-season grasses such as Bermudagrass, summer or fall application provides the best control. Where existing vegetation is growing under mowed or grazed management, apply this product after mowing at least one day before mowing to allow sufficient growth for good interception of the spray.

Desirable turfgrass may be planted following the above procedures.

Hand-held equipment may be used for spot treatment of unwanted vegetation growing in existing turfgrass. Broadcast or hand-held equipment may be used to control sod remnants or other unwanted vegetation after sod is harvested.

PRECAUTIONS, RESTRICTIONS: Do not disturb soil or underground plant parts before treatment. Tillage or renovation techniques such as vertical mowing, coring, or slicing should be delayed for 7 days after application to allow translocation into underground plant parts. In application rates total 2.4 quarts per acre or less, no waiting period between treatment and feeding or livestock grazing is required. If the rate is greater than 2.4 quarts per acre, remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting.

Do not feed or graze turfgrass grown for seed or sod production for 3 weeks following application.

8.4 Habitat Management

Habitat Restoration and Management

This product may be used to control grasses and other undesirable vegetation in habitat management and restoration, including rangeland and wildlife refuges. Applications can be made to allow establishment of native plant species, or to remove undesirable native species. For smaller broadcast, optimum vegetation control requires the spot treatment technique. Use only in areas where unwanted plants for habitat management and restoration.

Wildlife Food Plots

This product may be used as a site preparation treatment 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. If tillage is needed to prepare a seedbed, wait 7 days after application before tillage to allow translocation into underground plant parts.

8.5 Hollow Stem Injection

This product may be applied through hand-held injection devices that deliver the specified amounts of this product into targeted hollow-stem plants growing in any site specified on this label.

For control of the following hollow-stem plants, follow the use instructions below:

Castorbean, *Ricinus communis*

Inject 4 ml per plant of this product into the lower portion of the main stem.

Hemlock, Poison, *Conium maculatum*

Inject one leaf cane per plant 14 to 12 inches above the root crown with 5 ml of a 5% w/v solution of this product.

Hogweed, Giant, *Heracleum mantegazzianum*

Inject one leaf cane per plant 12 inches above the root crown with 5 ml of a 5% w/v solution of this product.

Horsetail, Field, *Equisetum arvense*

Inject one segment above the root crown with 0.5 ml per stem of this product. Use a small syringe that conforms to this rule.

Knotweed, Bohemian, *Polygonum bohemicum*

Inject 5 ml per stem of this product between the second and third internode.

Knotweed, Giant, *Polygonum latifolium*

Inject 5 ml per stem of this product between second and third internode.

Knotweed, Japanese, *Polygonum cuspidatum*

Inject 5 ml per stem of this product between second and third internode.

Reed, Giant, *Arundo donax*

Inject 5 ml per stem of this product between second and third internode.

Whistle, Canada, *Oenanthe lachrymans*

Cut 3 to 4 of the tallest plants at bud stage in a clump with clippers. Use a heavy needle that is pushed into the stem center and then slowly removed as 0.5 ml per stem of this product is injected into the stem.

NOTE: The combined total for all treatments must not exceed 7 quarts of this product per acre. At 5 ml per stem, 7 quarts should treat approximately 1,300 stems per acre.

8.6 Foliar or Broadcast Application to Japanese Knotweed and Oriental Bittersweet

Japanese Knotweed

For control of Japanese Knotweed (*Polygonum cuspidatum*), this product may be applied as a 2.0% w/v spray-to-wet solution. Ensure thorough coverage when using spray-to-wet treatments using hand-held equipment.

For broadcast applications, apply 3.25 quarts of this product in 3 to 10 gallons per acre as a broadcast treatment.

Late summer or fall application is ideal, while leaves are still green and after fruit formation.

Oriental Bittersweet

For control of Oriental Bittersweet (*Solanum elaeagnifolium*), this product may be applied as a 2.0% w/v spray-to-wet solution. Ensure thorough coverage when using spray-to-wet treatments using hand-held equipment.

For broadcast applications, apply 2.5 quarts of this product in 3 to 10 gallons per acre as a broadcast treatment.

Late summer or fall application is ideal, while leaves are still green and after fruit formation.

8.7 Injection and Frill (Woody Brush and Trees)

This product may be used to control woody brush and trees by injection or frill applications. Apply this product using suitable equipment which injects or drills into the living tissue. Apply the equivalent of 1 ml of this product per inch 2 to 3 inches of trunk diameter at breast height (DBH). This is best achieved by applying a 5% to 10% percent concentration of this product either by injection or frill around the tree or as cuts evenly spaced around the circumference of tree diameter. In some cases, better results are achieved by applying diluted material to a continuous frill or more closely spaced cuttings. Liquid application techniques that allow growth to occur from killed or cut areas in species that sprout freely, in species that sprout from basal or collar buds or an adventitious angle to produce a sprouting shoot and not a callus, or sprouting from a basal or collar angle. For best results, application should be made during periods of active growth or after full leaf expansion.

8.8 Ornamentals, Plant Nurseries and Christmas Trees

Post-directed, Trim-and-Edge

This product may be used as a post-directed spray around established woody ornamental species such as arbutus, azalea, boxwood, crabapple, eucalyptus, euonymus, fir, douglas fir, holly, holly, holly magnolia, maple, poplar, oak, privet, pine, spruce and yew. This product may also be used to trim-and-edge around trees, buildings, sidewalks and roads, potted plants and other objects in a nursery setting.

Desirable plants may be protected from the spray solution by using shields or coverings made of cardboard or other impermeable material. **DO NOT USE THIS PRODUCT AS AN OVER-THE-TOP BROADCAST SPRAY IN ORNAMENTALS AND CHRISTMAS TREES.** Care must be exercised to avoid contact of spray, drift or mist with foliage or bark of established ornamental species.

Site Preparation

This product may be used prior to planting any ornamental, nursery or Christmas tree species.

Wiper Applicators

This product may be used through wick or other suitable wiper applicators to control or partially control undesirable vegetation around established eucalyptus or poplar trees. See the Selective Equipment section of this label for further information about the proper use of wiper applicators.

Greenhouse/Shadehouse

This product may be used to control weeds growing in and around greenhouses and shadehouses. Desirable vegetation must not be present during application and air circulation fans must be turned off.

8.9 Parks, Recreational and Residential Areas

This product may be used in parks, recreational and residential areas. It may be applied with any application equipment described in this label. This product may be used to trim-and-edge around trees, fences, paths, around buildings, sidewalks, and other objects in these areas. This product may be used for spot treatment of unwanted vegetation. This product may be used to eliminate unwanted weeds growing in established lawn beds or ornamental plantings. This product may be used prior to planting an area to ornamentals, flowers, turfgrass (soil or seed), or prior to laying asphalt or beginning construction projects.

All of the instructions in the Non-Crop Areas and Industrial Sites section apply to park and recreational areas.

8.10 Railroads

The instructions in the Non-Crop Areas and Industrial Sites section may be used on railroads.

Bare Ground, Ballast and Shoulders, Crossings, and Spot Treatment

This product may be used to maintain bare ground on railroad ballast and shoulders. Repeat applications of this product may be used as weeds emerge to maintain bare ground. This product may be used to control tall-growing weeds to improve line-of-sight at railroad crossings and reduce the need for mowing along rights-of-way. For crossing applications, up to 30 gallons of spray solution per acre may be used.

TANK MIXTURES: This product may be tank mixed with the following products for ballast, shoulder, spot, bare ground and crossing treatments, provided that the specific product is registered for use on such sites. Refer to these product labels for approved non-crop sites and application rates. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used. Use according to the most restrictive precautionary statements for each product in the mixture.

It is the responsibility of the user to ensure that the mixture product's label allows the specific application when tank mixing with a generic active ingredient listed below.

Arsenal	Hyvar X	armazine
atrazine	Hyvar (L)	Spoke 800
brombala	Krovar DF	Telar DF
Escort	Dust X	Transline
Escort KP	Dust X	Velpar DF
Garlon 3A	Outdrin	Velpar
Garlon 4	Sanara DG	W-L-D

Tank mixtures with products containing this generic active ingredient may be made provided the specific product is registered for this use.

Brush Control

This product may be used to control woody brush and trees on railroad rights-of-way. Apply 3 to 8 quarts of this product per acre as a broadcast spray, using boom-type or boomless nozzles, up to 30 gallons of spray solution per acre may be used. Apply a 0.5 to 1.5 percent solution of this product when using high-volume spray-driven applications. Apply a 4 to 8 percent solution of this product when using low volume directed sprays for spot treatment. This product may be mixed with the following products for treatment of woody brush and trees:

Arsenal	Telar DF	Varquish
Escort	Krenite	Velpar DF
Escort KP	Tordon K	Velpar L
Garlon 3A	Tordon 22K	
Garlon 4	Transline	

Bermudagrass Release

This product may be used to control or partially control many annual and perennial weeds for effective release of actively growing Bermudagrass. Apply 13 to 35 fluid ounces of this product in up to 30 gallons of spray solution per acre. Use the lower rate when treating annual weeds below 6 inches in height (or inner length). Use the higher rate as weeds increase in size or as they approach flower or seedhead formation. These rates will also provide partial control of the following perennial species:

Bahiagrass	Johnsongrass
Bluestem, silver	Trumpet creeper
Fescue, tall	Vaseygrass

Apply 6.4 to 51 fluid ounces of this product in a tank mixture with 0.75 to 1.33 ounces of Outdrin herbicide per acre. Read and follow all label directions for Outdrin herbicide.

This product may be tank mixed with Dust KP if tank mixed, use no more than 13 to 35 fluid ounces of this product with 1 to 2 ounces of Dust KP per acre. Use the lower rates of each product to control annual weeds less than 6 inches in height (or inner length) that are listed on this label and the Dust KP label. Use the higher rates as annual weeds increase in size and approach the flower or seedhead stages. These rates will also provide partial control of the following perennial weeds:

Bahiagrass	Fescue, tall
Blackberry	Johnsongrass
Bluestem, silver	Portulaca
Bromsedge	Raspberry
Calisgrass	Trumpet creeper
Dawberry	Vaseygrass
Dock, curly	Veronica blue
Dogfennel	

Use only on well-established Bermudagrass. Bermudagrass injury may result from the treatment, but regrowth will occur under most conditions. Repeat applications in the same season may cause severe injury.

8.11 Roadsides

The instructions in the Non-Crop Areas and Industrial Sites section may apply to roadsides.

Shoulder Treatments

This product may be used on road shoulders. It may be applied with boom sprayers, shielded boom sprayers, high-volume off-center nozzles, hand-held equipment, and similar equipment.

Guardrails and Other Obstacles to Mowing

This product may be used to control weeds growing under guardrails and around signposts and other objects along the roadside.

Spot Treatment

This product may be used as a spot treatment to control unwanted vegetation growing along roadsides.

TANK MIXTURES: This product may be tank mixed with the following products for shoulder, guardrail, spot and bare ground treatments provided that the specific product is registered for use on such sites. Refer to these product labels for approved non-crop sites and application rates. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used. Use according to the most restrictive precautionary statements for each product in the mixture.

User is responsible for ensuring that the mixture product's label allows the specific application when tank mixing with a generic active ingredient listed below.

atrazine	Landmark KP	Sanara DG
Croscow W	Landmark KP	Suraz ne
brombala	Dust	Surflor AS
Escort	Dust KP	Surflor WCG
Escort	Outdrin	Telar DF
Escort (L)	permethrin	Velpar DF
Fendrance	Rustban	Velpar L
Gallery DF	Platyau DG	W-L-D
Krovar DF	Post	
Landmark KP	Ronstar SG WSP	

Tank mixtures with products containing this generic active ingredient may be made provided the specific product is registered for this use.

Release of Bermudagrass or Bahiagrass

Dormant Applications

This product may be used to control or partially control many winter annual weeds and to facilitate release of dormant Bermudagrass or Bahiagrass. Treat only when soil is dormant and is in a growing area. This product may also be tank mixed with Outdrin or Dust KP for residual control. Tank mixtures of this product with Dust KP may delay green up.

For best results on winter annuals, treat when plants are in an early growth stage (below 5 inches in height) after most have germinated. For best results on fall fescue, treat when fescue is at or beyond the 4- to 5-leaf stage.

Apply 5.4 to 51 fluid ounces of this product in a tank mixture with 0.75 to 1.33 ounces of Outrider herbicide per acre. Read and follow all label directions for Outrider herbicide.

Apply 5.4 to 51 fluid ounces of this product per acre alone or in a tank mixture with 0.25 to 1 ounce per acre of Out XP. Apply the labeled rates in 10 to 40 gallons of water per acre. Use only in areas where Bermudagrass or bahiagrass are desirable ground covers and where some temporary injury or discoloration can be tolerated. To avoid delays in greenup and minimize injury, add no more than 1 ounce of Out XP per acre on Bermudagrass and no more than 0.5 ounce of Out XP per acre on bahiagrass and avoid treatments when these grasses are in a semi-dormant condition.

Actively Growing Bermudagrass

This product may be used to control or partially control many annual and perennial weeds for effective release of actively growing Bermudagrass. Apply 1.3 to 28 fluid ounces of this product in 10 to 40 gallons of spray solution per acre. Use the lower rate when treating annual weeds below 5 inches in height for runner length. Use the higher rate as weeds increase in size or as they approach flower or seedhead formation. These rates will also provide partial control of the following perennial species:

Bahiagrass	Johnsongrass
Bluestem, silver	Trumpet creeper
Fescue, tall	Vasaygrass

This product may be tank mixed with Outrider herbicide for control or partial control of Johnsongrass and other weeds listed in the Outrider label. Use 5.4 to 25 fluid ounces of this product with 0.75 to 1.33 ounces of Outrider. Use the higher rates of both products for control of perennial weeds or annual weeds greater than 5 inches in height.

This product may be tank mixed with Out XP (tank mix) use no more than 1.3 to 25 fluid ounces of this product with 0.25 ounces of Out XP per acre. Use the lower rates of each product to control annual weeds less than 5 inches in height for runner length that are listed in this label and the Out XP label. Use the higher rates as annual weeds increase in size and approach the flower or seedhead stages. These rates will also provide partial control of the following perennial weeds:

Bahiagrass	Fescue, tall
Bluestem, silver	Johnsongrass
Broomsedge	Pumpkin
Dallisgrass	Trumpet creeper
Doan's only	Vasaygrass
Dogfennel	Verbena, blue

Use only on well-established Bermudagrass. Bermudagrass injury may result from the treatment, but regrowth will occur under moist conditions. Repeat applications of the tank mix in the same season may cause severe injury.

Actively Growing Bahiagrass

For suppression of vegetative growth and seedhead inhibition of bahiagrass for approximately 45 days, apply 5 fluid ounces of this product in 10 to 40 gallons of water per acre. Apply 1 to 2 weeks after full greenup or after mowing to a uniform height of 3 to 4 inches. This application must be made prior to seedhead emergence.

For suppression up to 120 days, apply 5 fluid ounces of this product per acre followed by an application of 1.5 to 3 fluid ounces per acre about 40 days later. Make no more than 2 applications per year.

This product may be used for control or partial control of Johnsongrass and other weeds listed on the Outrider label of actively growing bahiagrass. Apply 5 ounces of this product with 0.75 to 1.0 ounces of Outrider per acre. Use only on well-established bahiagrass.

A tank mixture of this product plus Out XP may be used. Apply 5 fluid ounces of this product plus 0.5 to 1.0 ounce of Out XP per acre 1 to 2 weeks following an initial spring mowing. Make only one application per year.

8.12 Bromus Species and Medusahead in Pastures and Rangelands

Bromus species:

This product may be used to knock down brome (*Bromus tectorum*), brome (*Bromus japonicus*), bromegrass (*Bromus unioloides*) and creagrass (*Bromus ciliaris*) found in the natural range and non-pasture areas. Apply 5.5 to 13 fluid ounces of this product per acre in a broadcast application.

For best results, treatment should coincide with early seedhead emergence of the most mature plants. Delaying the application until the growth stage will reduce the effectiveness in other weedy grasses. Rainfall should be expected in the spring following year and seed banks are depleted and the probability of annual plants can become problematic to the site.

Medusahead:

For best results, apply 5 fluid ounces of this product per acre when plants are actively growing and are in the 4-leaf stage. Repeat this may be made in the fall or spring.

Application to a pasture and meadow may be made using ground or aerial equipment. Aerial application of this product may be made using ground equipment.

For aerial applications, apply in 2 to 10 gallons of water per acre. For applications using ground equipment, apply in 10 to 20 gallons of water per acre. When applied as directed in this label, there are no grazing restrictions.

8.13 Utility Sites

In utility sites, this product may be used along electrical power pipeline and telephone rights-of-way and in other sites associated with these rights-of-way such as substations, roadsides, railroads or similar rights-of-way that run in conjunction with utilities.

This product may be used in utility sites and substations for bare ground, trim-and-edge around objects, spot treatment of unwanted vegetation and to eliminate unwanted weeds growing in established shrub beds or ornamental plantings. This product may be used prior to planting a utility site to ornamentals, flowers, turfgrass (seed or seed), or beginning construction projects.

Repeated applications of this product may be used as weeds emerge to maintain bare ground.

This product may also be used in preparing or establishing wildlife openings within these sites, maintaining access roads and for ride trimming along utility rights-of-way.

TANK MIXTURES: Tank mixtures of this product may be used to increase the spectrum of control for herbaceous weeds, woody shrub and trees. This product may be tank mixed with the following products. Refer to these products' labels for approved non-crop sites and application rates. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used. Use according to the most restrictive precautionary statements for each product in the mixture.

User is responsible for ensuring that the mixture product's label allows the specific applications when tank mixing with a generic active ingredient listed below.

Arsenal	Arenite	Surflan AS
atrazine	Avamar DF	Surflan HD 3
bromobal	Out	Telar DF
glyphosate	Out XP	Transline
Endurance	Outrider	Vanguard
Escort	Permethrin	Velpar DF
Escort XP	Plateau	Velpar L
Garlon 3A	Sanam DF	2,4-DF
Garlon 4	Simazine	

Tank mixtures with products containing this generic active ingredient may be made provided the specific product is registered for this use.

For ride trimming treatments, use this product alone or in a tank mixture with Garlon 4.

8.14 Conservation Reserve Program (CRP)

This product may be used to prepare CRP land for crop production. Refer to Federal, State or local use guides for CRP renovation guidance. For any application listed for treatment in this label, applications must be made at least 30 days prior to planting.

Renovation (Rotating out of CRP), Site Preparation, Postemergence Weed Control in Dormant CRP Grasses, Over-the-Top Wiper Applications

This product may be used to suppress competitive growth and seed production of undesirable vegetation in CRP acres. Such applications may be made with wiper application equipment or as a broadcast or spot treatment to dormant CRP grasses. For selective applications with broadcast spray equipment, apply 10 to 13 fluid ounces of this product per acre in early spring before desirable CRP grasses such as crested and tall wheatgrass break dormancy and initiate green growth. Late fall applications can be made for desirable perennial grasses have reached dormancy.

Some stunting of CRP perennial grasses will occur if broadcast applications are made when plants are not dormant. No waiting period is required between application and grazing or harvesting for feed. Do not apply more than 2.25 quarts per acre per year onto CRP grasses.

8.15 Grass Seed or Sod Production

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

This product controls most existing vegetation prior to increasing turf or other grass seed areas or establishing turfgrass grown for sod. It may also be used to destroy remaining unseeded grass vegetation when product is fields are converted to alternate uses or crops. Make applications before, during or after planting or for end of row termination control of existing vegetation. Delay planting to determine if any regrowth or escaped underground plant parts occur. Where existing vegetation is growing under mowed grass management, apply this product after mowing to control a regular mowing to allow sufficient growth for good treatment in the spring. Where repeat treatments are necessary, sufficient regrowth must be obtained prior to application. For water seeder grasses such as Bermudagrass, summer or fall applications are recommended. Broadleaf equipment may be used for control applications on water seeder grasses when not harvested. Application rates of 10 to 13 quarts per acre may be used to remove established stands of grass and for sod areas.

Do not mix in soil or underground after planting before the new grass or sod is established. Techniques such as aerial or ground application should be followed for 30 days after establishment to allow grass to establish and to prevent seedling establishment. Application rates of 2.25 quarts per acre or less, as a preplant or preemergence treatment, are recommended.

Investigate grazing is required. If the rate is greater than 2.25 quarts per acre, remove livestock before application and wait 8 weeks after application before grazing or harvesting. For any crop not listed for treatment in this label, applications must be made at least 30 days prior to plowing. Applications must be made prior to the emergence of the crop to avoid crop injury.

Shielded Sorayers

Apply 26 fluid ounces to 2-4 quarts of this product in 10 to 20 gallons of water per acre to control weeds between grass seed rows. Uniform planting in straight rows aids in shielded sprayer applications. Best results are obtained when the grass seed crop is small enough to easily pass by the protective shields.

Contact of this product in any manner to any vegetation to which treatment is not intended may cause damage. Such damage shall be the sole responsibility of the applicator.

Over-the-Top Wiper Applications

Applicators should be adjusted so that the water droplet point is at least 2 inches above the desirable vegetation. Weeds should be a minimum of 6 inches above the desirable vegetation. Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in grass clumps, severe nestations, or when height of weeds varies so that not all weeds are contacted. In these instances, repeat treatments may be necessary. Contact of the herbicide solution with desirable vegetation may result in damage or destruction.

Soot Treatment

Use a 1.0 to 1.6 percent solution. Apply this product prior to seeding of grasses grown for seed. The crop receiving the spray in the treated area will be killed. Take care to avoid drift or spray outside the target area for the same reason. Hand-held equipment may be used to control weeds and other unwanted vegetation after seed is harvested.

Creating Rows in Annual Ryegrass

Use 13 to 25 fluid ounces of this product per acre. Use the higher rate when the vegetation is greater than 5 inches tall. Best results are obtained when applications are made before the vegetation reaches 5 inches in height.

Set nozzle heights to allow the establishment of the desired row spacing while preventing spray droplets, spray foams or drift to contact the grass plants not treated. Use low-pressure nozzles or drop nozzles designed to target the application over a narrow band.

Grower assumes all responsibility for crop losses from misapplication.

8.16 Pastures

LABELLED GRASSES. Any pasture grass (*Gramineae* family), including bahiagrass, Bermudagrass, bluegrass, bromie fescue, guineagrass, kikuyugrass, orchardgrass, pearlgrass, ryegrass, timothy, wheatgrasses.

TYPES OF APPLICATIONS: Spot Treatment, Over-the-Top Viper Applications, Preplant
 Preemergence, Pasture Renovation, Postemergent Broadcast.

Preplant, Preemergence, Pasture Renovation

This product may be applied prior to planting or emergence of forage grasses including bahiagrass, Bermudagrass, bluegrass, broom foxtail, guadalupegrass, guayagrass, lespedeza, panicum grass, ryegrass, timothy, wheatgrass.

In addition, this product may be used to control perennial pasture species listed on this label prior to replanting.

If application rates total 2.25 quarts per acre or less, no waiting period between treatment 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 4 weeks after application before grazing.

Spot Treatment, Over-the-Top Wiper Applications

This product may be applied as a spot treatment or with wider applicators if desired. Applications may be made on the same area at 30-day intervals.

For spot treatments or wiper application methods using rates at 25 pounds per acre or less, the entire field or any portion of it may be treated. Wiper treatments or wiper application are made using rates above 25 pounds per acre no more than 10 percent of the total pasture may be treated at any one time to achieve maximum performance. Remove domestic livestock before application and wait 7 days after application before grazing livestock or harvesting.

Postemergent Weed Control (Broadcast Treatments)

This product may be used to suppress competitive growth and seed production of annual weeds and undesirable vegetation in pastures. For selective applications with broadcast spray equipment, apply 1.3 to 1.3 fluid ounces of this product per acre in early spring before desirable perennial grasses break dormancy and initiate green growth. Late fall applications can be made after desirable perennial grasses have reached dormancy.

Some standing or perennial grasses will occur if ~~proposed~~ applications are made when plants are not dormant. No waiting period is required when sodification and grazing or harvesting for forage use of higher application rates will cause stand reductions. Do not apply more than 2.5 tons per acre per year on native grasses except for "emergency" uses (see instructions above). If sodalizing is needed due to a bare stand or no show applications must be made at least 10 days prior to planting any type of sod for treatment of the sodal

9.0 WEEDS CONTROLLED

Always use the higher rate of this product per acre within the specified range when weeds grow in heavy or dense or weeds are growing in an undisturbed, more cultivated area.

Reduced results may occur when treating weeds heavily covered with dust. For weeds that have been mowed, grazed or cut, allow regrowth to occur prior to treatment.

Refer to the following label sections for rates for the control of annual and perennial weeds and woody brush and trees. For difficult to control perennial weeds and woody brush and trees, where plants are growing under stressed conditions or where infestations are dense, this product may be used at 4 to 3 quarts per acre for enhanced results.

9.1 Annual Weeds

Use 26 fluid ounces per acre if weeds are less than 5 inches in height or runner length and 1.2 to 3.2 quarts per acre if weeds are over 5 inches in height or runner length when weeds are growing under stressed conditions. Use the higher rate for tough-to-control species regardless of the weed size at application. Treat tough-to-control weeds early when they are relatively small. This product may be tank mixed provided that the specific tank mix product is registered for use on the target site. Refer to these product labels for approved sites and application rates. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used. Use according to the most restrictive precautionary statements for each product in the mixture.

For spray-to-wet applications, apply a 0.4 percent solution of this product to weeds less than 5 inches in height or tiller length. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds. For annual weeds over 5 inches tall or for smaller weeds growing under stressed conditions, use a 0.3 to 1.6 percent solution. Use the higher rate for tough, perennial species or for weeds over 24 inches tall.

Wheat Species	Kochia
Anoda scurried	lamo s-quarrels
Barley*	little barley
Barleygrass*	London nickel
Buttercruss	lawnweed
Black nightshade*	Medusa-head
Bluegrass annual*	Morningglory/Ipomoea spp.
Bluegrass, bulbous*	Mustard blue
Bass a. vivacious	Mustard canary
Brome downy	Mustard tumble
Brome, Japanese*	Mustard white
Brown-top panicum*	Oats
Buttercup*	Pigweed
Carolina foxtail*	Plains/lickseed crepusculis*
Carolina geranium	Prickly lettuce*
Castor bean	Puncturevine
Cheatgrass*	Purslane common
Cheeseweed (Malva parviflora)	Ragweed common*
Chenil*	Ragweed, giant
Chickweed*	Ped. ice
Cocklebur*	Russian lustle
Copperleaf hockernbeam	Rus*
Corn*	Ryegrass*
Corn speedwell*	Sandbur field*
Cragwort*	Shattercane*
Dwarf dandelion*	Shepherd's-purse*
Eastern mannagrass*	Sicklepod
Foliola*	Signalgrass, broadleaf*
Fall panicum*	Smartweed laquythumb*
Falsedar celion*	Smartweed, Pennsylvanic
Falsedax smallseed*	Sowthistle annual
Fiddleneck	Spanishneedles
Field pennycress*	Steeplew. purslane*
Flare*	Sprangletop*
Fleabane annual*	Sourge, annual
Fleabane hairy	Sourge prostrate*
"Gougea boum-hisic"	Sourge scottish*
Fleabane rough*	Soury umbrella*
Florida pussey	Stachysle yellow
Fortail*	Stinkgrass*
Scatgrass ported*	Sanflower*
Gorsegrass	Teaweed/Prickly da
Grain sorghum similar*	Texas panicum*
Groundsel common*	Violetleaf
Hemo sesbania	Virginia copperleaf
Hemibit	Yellow copperweed*
Horward/Maretail	Wheat*
"Juncus canadensis"	Wild oats
Irongrass*	Witongrass*
Juncusgrass seedling	Woody cudgrass*
unglerice	Yellow rice
Knotweed	

*When using field broadcast equipment, aerial applications or boom sprays, always "start" at least three species will be controlled or partially controlled. Using 30-40 gallons of product per acre. Applications must be made using 3 to 14 gallon per inch diameter nozzle. Nozzles that are prone to clog coverage of foliage and stems when wind direction early growth stage.

9.2 Perennial Weeds

Best results are obtained when perennial weeds are removed after they reach the reproductive stage of growth. Weeds should not be cut in grasses and clover formation in pastures. For annual young plants, best results are obtained when the plants

When a mature stage of growth. In many situations, treatments are required prior to these growth stages. Under these conditions, use the higher application rate within the recommended range.

Ensure thorough coverage when using spray-to-wet treatments using hand-held equipment. When using hand-held equipment for low volume directed spot treatments, apply a 1- to 3 percent solution of this product.

Allow 7 or more days after application before tillage.

Weed Species	Rate (QT/A)	Hand-Held % Solution
Ambly*	3.8	1.5
Alligatorweed*	3.2	1.2
Anise (fennel)	1.6 - 3.2	0.8 - 1.6
Barngrass	2.4 - 4	1.6
Beachgrass, European (<i>Ammophila arenaria</i>)	—	4
Bentgrass*	1.2	1.6
Bermudagrass	4	1.6
Bermudagrass, water (knotgrass)	1.2	1.6
Bindweed, field	3.2 - 4	1.6
Bluegrass, Kentucky	1.6	1.6
Blueweed, Texas	3.2 - 4	1.6
Brackenfern	2.4 - 3.2	0.8 - 1.2
Bromegrass, smooth	1.6	1.6
Bursage, woolly-leaf	—	1.6
Canarygrass, reed	1.6 - 2.4	1.6
Cattail	2.4 - 4	1.6
Clover, red, white	2.4 - 4	1.6
Cogongrass	2.4 - 4	1.6
Dallisgrass	2.4 - 4	1.6
Lar, derson	2.4 - 4	1.6
Dock, curly	2.4 - 4	1.6
Dogbane, hemp	3.2	1.6
Fescue (except tall)	2.4 - 4	1.6
Fescue, tall	0.8 - 2.4	1.6
German ivy	1.6 - 3.2	0.8 - 1.6
Guineagrass	2.4	0.8
Horsenettle	2.4 - 4	1.6
Horsenail	3.2	1.6
Iceplant	1.6	1.2 - 1.6
Jerusalem artichoke	2.4 - 4	1.6
Johnsongrass	1.6 - 2.4	0.8
Kikuyugrass	1.6 - 2.4	1.6
Knapweed	3.2	1.6
Lantana	—	0.8 - 1.6
Lespedeza	2.4 - 4	1.6
Milkweed, common	1.6	1.6
Muhly, wirestem	1.6	1.6
Nettle, common	2.4 - 4	1.6
Napiergrass	2.4 - 4	1.6
Nightshade, silverleaf	1.6	1.6
Nutsedge, purple yellow	2.4	0.8 - 1.6
Oxeye daisy	1.6	1.6
Pampasgrass	2.4 - 4	1.2 - 1.6
Paragrass	2.4 - 4	1.6
Pepperweed, perennial	3.2	1.6
Phragmites*	2.4 - 4	1.3 - 1.6
Poison hemlock	1.6 - 3.2	0.8 - 1.6
Quackgrass	1.6 - 2.4	1.6
Redvine*	1.6	1.6
Reed, giant	3.2 - 4	1.6
Ryegrass, perennial	1.6 - 2.4	0.8
Smartweed, swamp	2.4 - 4	1.6
Spruce, leafy*	—	1.6
Sweet potato, wild*	—	1.6
Thistle, archer	1.6 - 4	0.8 - 1.6
Thistle, Canada	1.6 - 4	1.6
Timothy	1.6 - 2.4	1.6
Trifolium*	1.6 - 4	1.6
Trumpetcrueper*	1.6 - 2.4	1.6
Velvetgrass	2.4 - 4	1.6
Whodgrass, western	1.6 - 2.4	1.6

*Partial control

9.3 Woody Brush and Trees

Apply this product to the foliage of the plant. For best results, apply this product to the foliage of the plant when the plant is in the flowering stage. For best results, apply this product to the foliage of the plant when the plant is in the flowering stage.

When have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation.

In some areas, best results are obtained when applications are made in the spring to early summer when brush is susceptible to high moisture content and is flowering.

Ensure thorough coverage when using spray-to-wet treatments using hand-held equipment. When using hand-held equipment for low volume directed-spray spot treatments, apply a 1 to 3 percent solution of this product.

Symptoms may not appear prior to frost or some months with fall treatments.

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

Weed Species	Broadcast Rate (QT/A)	Hand-Held Spray-to-Wet % Solution
Alder	2.4 - 3.2	0.8 - 1.2
Ash*	1.6 - 4	0.8 - 1.6
Aspen, quaking	1.6 - 2.4	0.8 - 1.2
Bearclover (Bearmat)*	1.6 - 4	0.8 - 1.6
Beech*	1.6 - 4	0.8 - 1.6
Birch	1.6	0.8
Blackberry	2.4 - 3.2	0.8 - 1.2
Blackgum	1.6 - 4	0.8 - 1.6
Bracken	1.6 - 4	0.8 - 1.6
Broom, French (Saskia)	1.6 - 4	1.2 - 1.6
Buckwheat, California*	1.6 - 3.2	0.8 - 1.6
Cascara*	1.6 - 4	0.8 - 1.6
Catsclaw*	1.6	0.8 - 1.2
Ceanothus*	1.6 - 4	0.8 - 1.6
Chamise*	1.6 - 4	0.8
Cherry, bitter black (Am)	1.6 - 2.4	0.8 - 1.6
Coyote brush	2.4 - 3.2	1.2 - 1.6
Deerweed	1.6 - 4	0.8
Dogwood*	1.6 - 4	0.8 - 1.6
Elaeagnus	1.6	0.8
Elm*	1.6 - 4	0.8 - 1.6
Eucalyptus	—	1.6
Gorse*	1.6 - 4	0.8 - 1.6
Hasarilla*	1.6 - 3.2	0.8 - 1.6
Hawthorn	1.6 - 2.4	0.8 - 1.2
Hazel	1.6	0.8
Hickory*	1.6 - 4	0.8 - 1.6
Honeysuckle	1.6 - 3.2	0.8 - 1.2
Hornbeam, American*	1.6 - 4	0.8 - 1.6
Kudzu	3.2	1.6
Locust, black*	1.6 - 3.2	0.8 - 1.6
Madrone, resinous*	—	1.6
Manzanita*	1.6 - 4	0.8 - 1.6
Maple, red	1.6 - 3.2	0.8 - 1.2
Maple, sugar	—	0.8 - 1.2
Monkey flower*	1.6 - 3.2	0.8 - 1.6
Oak, black, white*	1.6 - 3.2	0.8 - 1.6
Oak, coast	2.4 - 3.2	0.8 - 1.2
Oak, northern, pin	1.6 - 3.2	0.8 - 1.2
Oak, scrub*	1.6 - 3.2	0.8 - 1.2
Oak, southern red	1.6 - 2.4	0.8 - 1.2
Pepper tree, Brazilian (Florida, red)	1.6 - 4	0.8 - 1.6
Persimmon*	1.6 - 4	0.8 - 1.6
Pine	1.6 - 4	0.8 - 1.6
Poison ivy	3.2 - 4	1.6
Poison oak	3.2 - 4	1.6
Poplar, yellow*	1.6 - 4	0.8 - 1.6
Redbud, eastern	1.6 - 4	0.8 - 1.6
Rose, multiflora	1.6	0.8
Russian olive*	1.6 - 4	0.8 - 1.6
Sage, black	1.6 - 3.2	0.8
Sage, white*	1.6 - 3.2	0.8 - 1.6
Sage brush, California	1.6 - 3.2	0.8
Silmonberry	1.6	0.8
Salicedar*	1.6 - 4	0.8 - 1.6
Sassaparilla*	1.6 - 4	0.8 - 1.6
Sourwood*	1.6 - 4	0.8 - 1.6
Sumac, laurel (Asian smooth)	1.6 - 3.2	0.8
Sweetgum	1.6 - 2.4	0.8 - 1.2
Tartarian*	1.6 - 4	0.8 - 1.6
White-barked Chinese	—	0.8

Weed Species	Broadcast Rate (QT/A)	Hand-Held Spray-to-Wet % Solution
tan oak resprouts*		1.6
Thimbleberry	1.6	0.8
Tobacco, tree	1.6 - 3.2	0.8 - 1.6
Tinyon*		1.6
Trumpet creeper	1.6 - 7.4	0.8 - 1.2
Vine maple*	1.6 - 4	0.8 - 1.6
Virginia creeper	1.6 - 4	0.8 - 1.6
Waxmyrtle, southern*	1.6 - 4	0.8 - 1.6
Willow	2.4	2.8
Yerba Santa*		1.6

*Partial control

10.0 LIMIT OF WARRANTY AND LIABILITY

Monsanto Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet. Directions, when used in accordance with those Directions under the conditions described therein, 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 promptly notify this Company of any claims, whether based in contract, negligence, strict liability, other tort or otherwise.

To the fullest extent permitted by law, buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including but not limited to, a combination with products other than those set forth in the Directions, application to or contact with desirable vegetation, 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, application in any manner not explicitly set forth in the Directions, insect or disease conditions, pests, or 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.

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 OF, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY TO THE FULLEST EXTENT PERMITTED BY 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.

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All other trademarks are the property of their respective owners.

This product is protected by U.S. Patent Nos. 4,405,531. Other patents, pending. No license granted under any non-U.S. patents.

EPA Reg. No. 524-529

In case of an emergency involving this product,
Call Collect day or night (314) 594-4000

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El venenador profesional anti-emergencia de amplio espectro completo para control de malezas en cultivos industriales, árboles y plantas ornamentales.

Instrucciones completas para el uso

EVITE EL CONTACTO DEL HERBICIDA CON EL FOLIAJE, TALLOS VERDES, RAÍCES NO LEÑOSAS EXPUESTAS O FRUTOS EXPUESTOS DE LOS CULTIVOS, PLANTAS Y ARBOLES DESIABLES. EN CASO CONTRARIO ES PROBABLE QUE SUFRAN GRAVES DAÑOS O SEAN DESTRUIDOS TOTALMENTE.

Registro en la EPA N° 524-529

076109

GRUPO 9 HERBICIDA

Antes de usar este producto, lea la etiqueta en su totalidad.

Úselo estrictamente de acuerdo con las instrucciones de la etiqueta.

No todos los productos recomendados en esta etiqueta han sido registrados para su uso en California.

Verifique el estado de registro de cada producto en California antes de utilizarlo.

Antes de comenzar a usar el producto, lea "LÍMITES EN LA GARANTÍA Y EN LA RESPONSABILIDAD" en la última sección de la etiqueta. Si las condiciones son inaceptables para usted, devuelva el producto inmediatamente sin abrir el recipiente.

ESTE ES UN PRODUCTO PARA USARSE TAL Y COMO ES. LA PREPARACIÓN MONSANTO NO LO HA DISEÑADO NI LO HA REGISTRADO PARA QUE SEA REFORMULADO. VEA LA ETIQUETA DEL ENVASE INDIVIDUAL PARA ENTERARSE DE LAS LIMITACIONES DE REEMPLAZO.

1.0 INGREDIENTES

INGREDIENTE ACTIVO:

* Glifosato, N-(fosfonometil)glicina, en forma de sal de isopropilammonio 50.2%

OTROS INGREDIENTES (incluyendo 13% de surfactante) 49.8%

100.0%

* Contiene 500 gramos por litro o 5 libras por galón americano de ingrediente activo glifosato en forma de su sal de isopropilammonio. Equivalente a 445 gramos por litro o 3.7 libras por galón americano del ácido glifosato.

Este producto está protegido por la patente de los Estados Unidos No. 4,405,531. Otros patentes en trámite. No se han otorgado licencias bajo ninguna patente que no sea de los Estados Unidos.

2.0 TELÉFONOS IMPORTANTES

1. PARA INFORMACIÓN SOBRE EL PRODUCTO O AYUDA PARA UTILIZAR ESTE PRODUCTO LLAME GRATIS AL:

1-800-332-3141

2. EN CASO DE QUE SE PRESENTE UNA EMERGENCIA RELACIONADA CON ESTE PRODUCTO O PARA OBTENER AYUDA MÉDICA, LLAME POR COBRAR A CUALQUIER HORAS DEL DÍA O DE LA NOCHE AL TELÉFONO:

(314) 594-4000

3.0 DECLARACIONES PREVENTIVAS

3.1 Riesgos para seres humanos y animales domésticos

Manténgase fuera del alcance de los niños.

¡PRECAUCIÓN!

CAUSA IRRITACIÓN MODERADA A LOS OJOS

Evite el contacto con los ojos y con la ropa.

PRIMEROS AUXILIOS: Llame al centro de envenenamientos o a un médico para que le indique el tratamiento.	
SI ENTRA EN CONTACTO CON LOS OJOS	• Mantenga abiertos los ojos y enjuague con agua corriente durante 15 a 20 minutos.
	• Si los síntomas de contacto continúan, póngase en contacto con el médico y continúe enjuagando los ojos.
• Lave la mano al envase o la etiqueta del producto cuando llame al centro de envenenamientos o al médico o cuando vaya a un hospital o farmacia.	
• También puede llamar por cobrar al teléfono (314) 594-4000. Si no puede obtener información sobre el tratamiento, llame al número de urgencia.	
• Este producto es idéntico al Roundup PRO® Concentrate. Registro de la EPA N° 524-529.	

(ANIMALES DOMÉSTICOS) Este producto se considera relativamente no tóxico para los perros y otros animales domésticos. Sin embargo, la ingestión de este producto en grandes cantidades de vegetación recientemente tratada puede resultar en una irritación gastrointestinal temporal (vómitos, diarrea, hinchazón) y otros problemas que no afectan la salud del animal. Si el animal sufre de cualquiera de los problemas mencionados, llame al veterinario o al fabricante para obtener más información. Si los síntomas persisten, llame al veterinario.

Equipo de protección personal (PPE)

Las personas a cargo de aplicar y manipular este producto deben utilizar: guantes de nitrilo largos y duraderos; gafas; camisa de manga larga; pantalones; y zapatos. Las instrucciones de etiqueta, etiqueta completa y el contenido de los recipientes de aplicación personal.

(PPE). Si no tiene las instrucciones para productos que se pueden lavar, utilice detergente y agua caliente. Conserve y lave los equipos de protección personal separados del resto de la ropa.

Desenche la tapa y otros materiales absorbentes que se hayan empapado o que se hayan contaminado mucho con el concentrado de este producto. No vuelva a utilizarlos.

En los casos en los cuales el personal encargado de manejar el producto lo hace en ambientes cerrados, cabinas cerradas o aviones, de manera tal que se cumplan los requisitos listados en "Worker Protection Standard (WPS) for agricultural pesticides (Normas para la Protección de los Trabajadores que trabajan con pesticidas usados en la agricultura)" [40 CFR 170.240 (d) (4-5)], los requisitos para el equipo de protección personal del trabajador pueden ser reducidos o modificados de acuerdo a lo que se especifica en las normas WPS.

IMPORTANTE: En los casos en que se utilice equipo de protección personal reducido debido al uso de un sistema cerrado, se debe suministrar a los trabajadores todo el equipo de protección personal detallado más arriba para "aplicadores y otros trabajadores" y deben tener el equipo disponible de inmediato para usar en una emergencia, por ejemplo un derrame o ruptura de equipo.

Recomendaciones de seguridad para el usuario

- El usuario debe:
- Lavarse las manos antes de comer, beber, mascar goma, usar tabaco o de usar el servicio higiénico.
- Quitarse la ropa inmediatamente en caso de que el pesticida entre dentro de ella. Luego debe lavarse muy bien y ponerse ropa limpia.

3.2 Riesgos al medio ambiente

No aplique directamente al agua, en áreas donde el agua superficial este presente o en áreas donde haya mareas altas y bajas por rebajo del nivel medio de mareas altas. No contamine el agua cuando lave los equipos ni cuando elimine las aguas de lavado de los mismos.

3.3 Riesgos de orden físico o químico

Para mezclar, almacenar y aplicar la solución de inicio de este producto, se deben usar solamente recipientes de acero inoxidable, fibra de vidrio, o ciertos recipientes de acero recubiertos internamente con plástico.

NO MEZCLE, ALMACENE O APLIQUE ESTE PRODUCTO O SUS SOLUCIONES DE REGULAR EN RECIPIENTES O TANQUES RECUBIERTOS DE ACERO GALVANIZADO O DE ACERO NO RECUBIERTO (EXCEPTO SI ES ACERO INOXIDABLE). Este producto o la solución de inicio reaccionan con el material de ciertos recipientes y tanques, lo cual produce nitrógeno, que puede formar una mezcla de gases altamente combustibles. Esta mezcla de gases entra en contacto con llamas, chispas, el cable de un soldador, un cigarrillo encendido o cualquier otra fuente de encendido, puede inflamarse o explotar y causar heridas graves a personas.

INSTRUCCIONES PARA EL USO

El uso de este producto de cualquier manera que sea inconsistente con las instrucciones dadas en la etiqueta es una violación de las leyes federales. Este producto solo puede utilizarse de acuerdo con las indicaciones sobre el modo de empleo que figuran en esta etiqueta o en las etiquetas o fichas técnicas adicionales de Monsanto publicadas por separado. Puede consultar las etiquetas adicionales en internet en www.agron.com, www.edms.net o www.greenbook.net o bien puede solicitarlas a su vendedor minorista autorizado de Monsanto o a su representante de Monsanto Company.

No aplique este producto de alguna manera que entre en contacto con los trabajadores u otras personas, ya sea directamente o por medio de alguna corriente de aire. Solamente las personas que les manipulen y que usen equipo protector podrán estar en el área durante su aplicación. Para verificar requisitos específicos de su rubro o estado, consulte con la agencia responsable de la regulación del uso de pesticidas.

Requisitos para el uso en la agricultura

Use este producto siguiendo estrictamente las instrucciones de la etiqueta y de acuerdo con "Worker Protection Standard" 40 CFR Sección 170. Estas normas contienen los requisitos para proteger a los trabajadores agrícolas en haciendas, bosques, viveros e invernaderos así como a aquellos trabajadores que manejen pesticidas usados en la agricultura. Las normas contienen los requisitos para entrenar, descontaminar, dar aviso y para las áreas de vivienda. También contienen instrucciones específicas y adicionales que tienen que ver con el contenido de esta etiqueta en lo relacionado con el equipo para la protección de junio (PPE) e intervalos de entrada restringida. Las regulaciones mencionadas en esta etiqueta se aplican únicamente a los usos de este producto que están regulados por las Normas para la Protección de los Trabajadores (WPS).

No debe ni permitir ni autorizar a personal a las áreas tratadas durante el intervalo de entrada restringida (EIR) de 4 horas.

El equipo de protección personal (PPE) permitido por el Reglamento de Protección al Trabajador mencionado para una entrada restringida a las áreas tratadas y no incluye el contacto con: cualquier cosa que haya sido tratada como plantas, suelo o agua; estacas, cables, mallas, tabacos y cables eléctricos; y cualquier recipiente a los productos químicos hechos de cualquier material impermeable.

Requisitos para usos no agrícolas

Los requisitos en esta etiqueta son para los usos de este producto que NO están regulados por WPS. 40 CFR Sección 170 para el uso de pesticidas en la agricultura. Las regulaciones del 40 PSI se aplican cuando el producto se usa para controlar plagas agrícolas en: invernaderos, viveros, bosques, etc.

Mantenga a los humanos y a los animales alejados de las áreas tratadas hasta que la solución aplicada se haya secado.

4.0 ALMACENAMIENTO Y ELIMINACIÓN

Son fundamentales el almacenamiento y la eliminación adecuados de los pesticidas para evitar la exposición de las personas y el medio ambiente como consecuencia de pérdidas y derrames del producto, excedentes o desechos y actos de vandalismo. No permita que este producto contamine el agua, los alimentos de las personas y animales o las semillas por medio del almacenamiento y la eliminación.

ALMACENAMIENTO DEL PESTICIDA: Guarde los pesticidas lejos de los alimentos para personas, los alimentos para mascotas, los alimentos para animales, las semillas, los fertilizantes y los materiales de uso veterinario. Mantenga el envase bien cerrado para evitar herramientas y contaminación.

ELIMINACIÓN DEL PESTICIDA: Para evitar desechos, use todo el material contenido en este envase, incluyendo los residuos del enjuague, aplicándolo según las indicaciones de la etiqueta. Si no es posible evitar los desechos, drene el producto restante a una planta de eliminación de desechos o a un programa de eliminación de pesticidas. Estos programas suelen ser manejados por gobiernos estatales o locales o por la industria. Todos los desechos deben seguir los procedimientos federales, estatales y locales aplicables.

ELIMINACIÓN DEL ENVASE: (PARA ENVASES DE PLÁSTICO RÍGIDO DE 2.5 GALONES O OTROS <7.5 GALONES)

Envase no rellenable. No vuelva a usar este envase para contener materiales que no sean pesticidas o pesticidas diluidos (residuos del enjuague). Después de vaciar y limpiar el envase, puede contener temporalmente residuos del enjuague u otros materiales relacionados con pesticidas. Contacte al organismo de reglamentación de su estado para determinar las prácticas permitidas en su estado.

MANIPULACIÓN DEL ENVASE: Enjuague tres veces o enjuague por presión el envase (o equivalente) inmediatamente una vez vacío.

Enjuague tres veces de la siguiente forma: Vacíe el contenido restante del envase en el equipo de aplicación o en un tanque de mezcla y drene durante 10 segundos después de que el flujo comience a gotear. Llene el envase con agua hasta un 1/4 de su capacidad. Vuelva a colocar la tapa y ajústela bien. Agite durante 10 segundos. Vierta los residuos del enjuague en el equipo de aplicación o tanque de mezcla o guárdelo para uso o eliminación posterior. Drene durante 10 segundos después de que el flujo comience a gotear. Repita este procedimiento dos veces más.

Enjuague por presión de la siguiente forma: Vacíe el contenido restante del envase en el equipo de aplicación o en un tanque de mezcla y continúe drenando durante 10 segundos después de que el flujo comience a gotear. Sostenga el envase en posición invertida sobre el equipo de aplicación o el tanque de mezcla o recoja los residuos del enjuague para su uso o eliminación posterior. Inserte la boquilla de enjuague por presión en la parte lateral del envase y enjuague a una presión de aproximadamente 40 PSI durante 30 segundos como mínimo. Drene durante 10 segundos después de que el flujo comience a gotear.

Una vez limpios, algunos envases de pesticidas de plástico pueden llevarse a un centro de acopio de envases o ser recogidos para su reciclaje. Para encontrar el centro más cercano, póngase en contacto con su distribuidor de productos químicos o con Monsanto en el 1-800-756-6387. Si no es posible reciclar el envase, pórtese el envase y deséchelo en un relleno sanitario.

PARA ENVASES DE PLÁSTICO RÍGIDO DE 30 GALONES O OTROS ENVASES DE MÁS DE 5 GALONES

ELIMINACIÓN DEL ENVASE: Envase no rellenable. No vuelva a usar este envase para contener materiales que no sean pesticidas o pesticidas diluidos (residuos del enjuague). Después de vaciar y limpiar el envase, puede contener temporalmente residuos del enjuague u otros materiales relacionados con pesticidas. Contacte al organismo de reglamentación de su estado para determinar las prácticas permitidas en su estado.

MANIPULACIÓN DEL ENVASE: Enjuague tres veces o enjuague por presión el envase (o equivalente) inmediatamente una vez vacío.

Enjuague tres veces de la siguiente forma: Vacíe el contenido restante del envase en el equipo de aplicación o en un tanque de mezcla y drene durante 10 segundos después de que el flujo comience a gotear. Llene el envase con agua hasta un 1/4 de su capacidad. Vuelva a colocar la tapa y ajústela bien. Inclíne el envase sobre la parte lateral y hágalo rodar hacia atrás y hacia adelante durante 30 segundos, asegurándose de que dé al menos un giro completo. Apoye el envase sobre uno de los extremos e inclínelo hacia atrás y hacia adelante varias veces. Invierta el envase apoyándolo sobre el otro extremo e inclínelo hacia adelante y hacia atrás varias veces. Vierta los residuos del enjuague en el equipo de aplicación o en un tanque de mezcla o conserve los residuos del enjuague para su uso o eliminación posterior. Repita este procedimiento dos veces más.

Enjuague por presión de la siguiente forma: Vacíe el contenido restante del envase en el equipo de aplicación o en un tanque de mezcla y continúe drenando durante 10 segundos después de que el flujo comience a gotear. Sostenga el envase en posición invertida sobre el equipo de aplicación o el tanque de mezcla o recoja los residuos del enjuague para su uso o eliminación posterior. Inserte la boquilla de enjuague por presión en la parte lateral del envase y enjuague a una presión de aproximadamente 40 PSI durante 30 segundos como mínimo. Drene durante 10 segundos después de que el flujo comience a gotear.

Una vez limpios, algunos envases de pesticidas de plástico pueden llevarse a un centro de acopio de envases o ser recogidos para su reciclaje. Para encontrar el centro más cercano, póngase en contacto con su distribuidor de productos químicos o con Monsanto en el 1-800-756-6387. Si no es posible reciclar el envase, pórtese el envase y deséchelo en un relleno sanitario.

ETIQUETA DE MANIPULACIÓN DEL ENVASE PARA RECIPIENTES PARA TRANSPORTE SEGÚN 40 CFR 50.103

ELIMINACIÓN DEL ENVASE: Los envases vacíos conservan valor y pueden ser reutilizados. Respete todas las precauciones indicadas en la etiqueta para el almacenamiento y no limpiado. Reseque y mantenga la etiqueta.

MANIPULACIÓN DEL ENVASE: Antes de rellenar, inspeccione minuciosamente el envase en busca de rasguños, grietas, perforaciones, desgastes y otros daños. No use el envase si está dañado. Si el envase está dañado, no lo use para transportar materiales peligrosos.

5.0 INFORMACIÓN GENERAL

Descripción del producto: Este producto es un herbicida sistémico de aplicación post-emergencia foliar, sin actividad residual en el suelo. Controla un amplio espectro de malezas anuales, malezas perennes, matorrales leñosos y árboles. Está formulado como un líquido soluble en agua con surfactante.

Aparición de los síntomas: Este producto se mueve dentro de la planta desde el punto de aplicación sobre el follaje hasta las raíces. Los efectos visibles en la mayoría de las malezas anuales se pueden apreciar entre los 2 y los 4 días después de la aplicación, pero en la mayoría de las malezas perennes es posible que no se observen hasta después de 7 días o más. El frío extremo o el cielo muy nublado después de la aplicación pueden retardar la actividad del producto y hacer que el efecto visual se demore. Los efectos visibles incluyen que la planta se marchita y se vuelve amarilla de forma gradual, hasta que la parte exterior se torna completamente color café y las partes de la planta que están bajo tierra se deterioran completamente.

Modo de acción en las plantas: El ingrediente activo de este producto inhibe una enzima hallada sólo en las plantas que es esencial para la formación de aminoácidos específicos.

Prácticas culturales: Se podrá observar una reducción en el efecto si se aplica el producto a malezas anuales o perennes que hayan sido segadas, que hayan sufrido de alimento para animales o hayan sido cortadas, y que no hubiesen crecido nuevamente hasta el nivel recomendado para el tratamiento.

Resistencia a la lluvia: La lluvia (torrencial) poco después de la aplicación podrá lavar el producto del follaje y se requiere una nueva aplicación para obtener un control adecuado.

No actividad en el suelo: Las malezas deben haber emergido en el momento de la aplicación para poder ser controladas por este producto. Las malezas que germinen de semillas después de la aplicación no serán controladas. Las plantas no emergidas (no raíces o raíces subterráneas de malezas perennes no controladas) no se verán afectadas por el herbicida.

Mezcla de tanque: Este producto no proporciona control de malezas residuales. Para manejar un control post-emergencia de malezas residuales, siga un programa de herbicidas descrito en la etiqueta. Lea y siga cuidadosamente las indicaciones y toda la información en las etiquetas de todos los herbicidas utilizados. Trate conforme con las regulaciones preventivas más restrictivas de cada producto en la mezcla de tanque.

Quando en esta etiqueta se recomienda una mezcla de tanque con un ingrediente activo genérico como dicloro (2,4-D) o dicamba, el usuario asume la responsabilidad de asegurarse de que la aplicación específica que está preparando está incluida en la etiqueta del producto.

El consumidor y todos los usuarios son responsables de todas las pérdidas o daños en relación con el uso o la manipulación de mezclas de este producto con herbicidas u otros materiales que no se recomiendan expresamente en esta etiqueta. La mezcla de este producto con herbicidas u otros materiales no recomendados en esta etiqueta puede dar como resultado una reducción en su rendimiento.

Cantidades de aplicación máximas: Las cantidades de aplicación o uso máximas especificadas en esta etiqueta están expresadas en unidades de volumen (onzas líquidas o cuartos de galón) de este producto por acre. No obstante, las dosis máximas de aplicación permitidas corresponden al uso de este producto en combinación con todos los herbicidas que contienen glifosato como principio activo. Tanto si son aplicados como mezclas de tanque o por separado, en función de las libras totales de glifosato (libras de ácido equivalente) por acre. Si se aplica más de un producto que contiene glifosato al mismo cultivo del mismo año, debe asegurarse de que el uso total de glifosato (libras de ácido equivalente) no excede el máximo permitido. Vea en la sección **INGREDIENTES** de esta etiqueta información importante sobre el producto.

Tratado como va especifica, el total combinado de todos los tratamientos no debe exceder de 2,5 cuartos de galón de este producto (libras de ácido de glifosato) por acre por año.

EVITE EL CONTACTO DE HERBICIDA CON EL FOLLAJE, TALLOS VERDES, RAÍCES NO LEÑOSAS EXPUESTAS O FRUTOS EXPUESTOS DE LOS CULTIVOS, PLANTAS Y ARBOLES DESEABLES. EN CASO CONTRARIO ES PROBABLE QUE SUFRAN GRAVES DAÑOS O SEAN DESTRUIDOS TOTALMENTE.

EVITE LA DISPERSIÓN. TENGA MUCHO CUIDADO CUANDO APLIQUE ESTE PRODUCTO PARA EVITAR DAÑOS A PLANTAS Y CULTIVOS DESEABLES.

No permita que la solución de herbicida purpurea, gota, se derrame o caiga sobre la vegetación deseable, ya que minúsculas cantidades de este producto pueden causar daños graves o destrucción del cultivo, plantas u árboles apest que no se pretenda tratar. Las probabilidades de daño causado por el uso de este producto aumentan cuando hay viento con ráfagas cuando la velocidad de viento aumenta, cuando la dirección del viento cambia constantemente o cuando hay otras condiciones meteorológicas que favorecen la deriva por viento. Al evitar las combinaciones de presión y tipo de boquilla que resulten en salpicaduras o partículas finas (niebla) que es probable que se absorban, EVITE APLICAR A UNA VELOCIDAD O PRESIÓN EXCESIVA.

NOTA: El uso de este producto de cualquier manera contraria a las indicaciones contenidas en esta etiqueta, puede resultar en lesiones a personas, animales o cultivos o pueden ocurrir otras consecuencias no deseadas.

5.1 Gestión de resistencia de malezas

El glifosato, el principal activo de este producto, es un herbicida del grupo 2 según el sistema de clasificación de efecto de la Weed Control Society of America. Todas las encuestas

de malezas pueden contener plantas naturalmente resistentes a los herbicidas del grupo 2. Las especies de malezas resistentes a los herbicidas del grupo 2 pueden tratarse con buenos resultados utilizando herbicidas de otro grupo o rotando las prácticas culturales o mecánicas.

Para reducir al mínimo la incidencia de biotipos resistentes al glifosato, respete las siguientes recomendaciones generales con respecto a la gestión de malezas:

- Haga un reconocimiento del sitio de la aplicación antes y después de haber aplicado herbicidas.
- Comience a controlar las malezas cuando sean todavía relativamente pequeñas.
- Incorpore otros herbicidas y prácticas de cultivo o mecánicas como parte de su sistema de control de malezas cuando sea adecuado.
- Utilice la cantidad indicada en la etiqueta para las malezas más difíciles de controlar en el sitio. Evite las mezclas de tanque con otros herbicidas que reduzcan la eficacia de este producto (por antagonismo) o las recomendaciones de mezclas de tanque que aumenten la utilización de cantidades de este producto inferiores a las recomendadas en esta etiqueta.
- Controle las malezas omilidas e imilidas que estén sembrando.
- Limpie los equipos antes de trasladarse de un sitio a otro para reducir o minimizar la propagación de semillas de malezas.
- Utilice semillas comerciales nuevas con la menor cantidad posible de semillas de malezas.
- Informe todo incidente por falta de cumplimiento referido a este producto a una persona determinada al representante de Monsanto, vendedor, agente de la localidad o agente de extensión del condado.

5.2 Recomendaciones de gestión de biotipos de malezas resistentes al glifosato

NOTA: Es fundamental realizar las pruebas adecuadas para confirmar la resistencia de la maleza al glifosato. Llame al 1-800-ROUNUP (1-800-768-6387) o póngase en contacto con su representante de Monsanto para determinar si se confirma la resistencia de algún cultivo de maleza en particular en su región o visite en Internet www.weedsources.com o www.weedscience.org.

Las recomendaciones de control para biotipos controlados como resistentes al glifosato se van a complementar con la publicación de algunos otros métodos complementarios para este producto y puede solicitarlos al vendedor minorista o al representante de Monsanto.

Debido a que no es posible determinar la existencia de nuevas malezas resistentes al glifosato hasta que se haya utilizado el producto y se cuente con la confirmación científica correspondiente, Monsanto Company no será responsable de ninguna pérdida que pudiera tener lugar en el caso de que este producto no logre controlar de forma eficaz los biotipos de malezas resistentes al glifosato.

Siga buenas prácticas de gestión de malezas para evitar la propagación de biotipos resistentes controlados.

- Si en su zona existe naturalmente un biotipo resistente, para lograr su control puede mezclar este producto en un tanque o aplicarlos secuencialmente con un herbicida secundariamente etiquetado con efectos diferentes.
- También se pueden utilizar prácticas de control culturales y mecánicas según corresponda.
- Haga un reconocimiento de los lugares tratados después de las aplicaciones de herbicida y controle las omisiones de biotipos resistentes antes de que estén sembrando.
- Limpie minuciosamente los equipos antes de abandonar los lugares que se saben que contienen biotipos resistentes.

6.0 MEZCLA

Las soluciones (solución de este producto se deben mezclar, almacenar y aplicar) usando fuertemente envases limpios de acero inoxidable. Para de vidrio, plástico o acero revestido con plástico, tenga cuidado para evitar que se forme un sello de endurecimiento hacia la sustancia vegetal. Use discos limpios apropiados para evitar la formación de sellos de endurecimiento cuando corresponda según las regulaciones estatales o locales.

MEZCLE, ALMACENE NI APLIQUE ESTE PRODUCTO NI SOLUCIONES DE POCO DE ESTE PRODUCTO EN ENVASES DE ACERO GALVANIZADO O ACERO NO REVESTIDO (SA) O ACERO INOXIDABLE NI EN TANQUES DE ROCIÓ.

Limpie las piezas del mezclador inmediatamente después de su aplicación lavándolas bien con agua.

6.1 Mezcla con agua

NOTA: EL REVENDIMIENTO DEL PRODUCTO PUEDE REDUCIRSE CONSIDERABLEMENTE SI SE MEZCLA CON AGUA CON ALGUNTOS DE FILTRO COMO SUSTANCIA VEHICULAR. MEZCLE ESTE PRODUCTO CON AGUA VOLUMINAMENTE EMPAQUADA O AGUA NO TRANSPARENTE DE CULTIVOS O ACELIVAS.

Este producto se mezcla fácilmente con agua. La cantidad de agua que debe mezclarse a agua depende de la cantidad de agua que se agregará al tanque en el cual se va a preparar la mezcla o al tanque del rocío. Agregue la cantidad recomendada de este producto cuando se está cerca de finalizar el llenado del agua y mezcle bien cuidadosamente. Mezcle la mezcla para que se forme un gel de suspensión hacia la sustancia vehicular. Mezcle o seque los componentes para evitar la formación de sólidos de endurecimiento cuando corresponda.

según las regulaciones estatales o locales. Es posible que durante la mezcla, la solución de rocío produzca espuma. Para evitar o minimizar la formación de espuma mezcle con cuidado, tape las derivaciones y mangueras de retorno en el fondo del tanque y, si es necesario, use compuestos absorbidos para evitar la formación de espuma o para eliminar la espuma ya formada.

6.2 Mezclas de tanque

Este producto no proporciona control de malezas residuales. Este producto puede mezclarse en un tanque con otros herbicidas para lograr el control de malezas residuales, un espectro de control de malezas más amplio o un efecto alternativo. Lea y siga siempre las indicaciones de las etiquetas de todos los productos utilizados en la mezcla de tanque. Utilice conforme con las declaraciones preventivas más restrictivas de cada producto en la mezcla.

Cuando en esta etiqueta se recomienda una mezcla de tanque con un ingrediente activo genérico como dicloro, atrazina, 2,4-D o dicamba, el usuario asume la responsabilidad de asegurarse de que la aplicación específica que está preparando está incluida en la etiqueta del producto que está utilizando en la mezcla de tanque. Consulte todas las etiquetas de cada uno de los productos, las etiquetas complementarias y las fichas técnicas de todos los productos de la mezcla de tanque y respete todas las precauciones y limitaciones de la etiqueta, incluidas las restricciones de la época de aplicación, las restricciones de la tierra y utilice conforme con las declaraciones preventivas más restrictivas de cada producto en la mezcla de tanque.

A fin de minimizar la formación de espuma, mantenga las tuberías de retorno lo más cerca del fondo del tanque. La malla de la rejilla en la boquilla y en los coladores de las mangueras no debería ser de menos de 30 hilos.

Siempre determine con anticipación la compatibilidad de todos los productos de la mezcla de tanque juntos en la siguiente manera mezclando antes pequeñas cantidades proporcionales. Asegúrese de que la mezcla en tanque específica está registrada para su aplicación en el área deseada.

Cuando en esta etiqueta se recomienda una mezcla de tanque con un ingrediente activo genérico como 2,4-D, atrazina, dicamba, dicloro, o pendimethalin, el usuario asume la responsabilidad de asegurarse de que la aplicación específica que está preparando está incluida en la etiqueta del producto que está utilizando en la mezcla de tanque.

Consulte todas las etiquetas de cada uno de los productos, las etiquetas complementarias y las fichas técnicas de todos los productos de la mezcla de tanque y respete todas las precauciones y limitaciones de la etiqueta, incluidas las restricciones de la época de aplicación, las restricciones de la tierra, el intervalo mínimo para volver a cosechar y las precauciones en cuanto a la rotación. Utilice conforme con las declaraciones preventivas más restrictivas de cada producto en la mezcla de tanque.

Siempre determine con anticipación la compatibilidad de todos los productos de la mezcla de tanque juntos en la siguiente manera mezclando antes pequeñas cantidades proporcionales.

6.3 Mezcla para rociadores de mano

Prepares el volumen deseado de solución de rocío mezclando en agua la cantidad indicada de este producto, como se indica en la siguiente tabla:

Solución de rocío

Cantidad de herbicida Concentrado Roundup PRO						
Volumen deseado	0.4%	1.8%	4.0%	6.0%	4.0%	8.0%
1 Gal	0.5 oz	1.8 oz	1.6 oz	2.1 oz	3.2 oz	10.5 oz
2.5 Gallons	1.3 oz	4.8 oz	4.2 oz	5.5 oz	8.0 oz	26.5 oz
10 Gallons	5.6 oz	19.2 oz	16.8 oz	22.0 oz	32.0 oz	106.0 oz

2.0 gal. de solución = 1.0 gal. de agua

Cuando se usen rociadores tipo mochila, o para bombear, se recomienda que este producto se mezcle con agua en un recipiente grande, llene el rociador con la solución ya lista.

6.4 Colorantes o tinturas

Se pueden agregar colorantes o tinturas de señalización a las soluciones de rocío de este producto, sin embargo, el rendimiento del producto puede ser inferior especialmente a bajas concentraciones de producto o a bajas diluciones. Utilice los colorantes o las tinturas según las recomendaciones del fabricante.

7.0 EQUIPOS Y TÉCNICAS PARA LA APLICACIÓN

No use ningún sistema de irrigación para aplicar este producto.

APlique ESTE PRODUCTO CON EQUIPOS QUE PUEDAN APLICARLO EFECTIVAMENTE EN LA FORMA Y LA CANTIDAD QUE SE REQUIERE PARA EL CONTROL DEL VOLUMEN DESEADO.

7.1 Equipo aéreo

NO APLIQUE ESTE PRODUCTO CON EQUIPOS AEROS, EXCEPTO BAJO LAS CONDICIONES QUE SE ESPECIFICAN EN LA ETIQUETA.

Para obtener más información, consulte el sitio web de Roundup en www.ROUNDUP.com o llame al 1-800-851-7329. Para obtener más información, consulte el sitio web de Roundup en www.ROUNDUP.com o llame al 1-800-851-7329.

Las dosis que se indican en la etiqueta de este herbicida en 3 a 25 galones de agua por acre. Cuando se usa de acuerdo con las instrucciones de la etiqueta, este producto brinda control o control parcial de las malezas herbáceas, matorrales leñosos y árboles mencionados en la sección TIPOS DE MALEZAS CONTROLADAS de esta etiqueta.

EN CASO DE APLICACIÓN AÉREA EN CALIFORNIA, CONSULTE EN LA ETIQUETA COMPLEMENTARIA FEDERAL LAS INSTRUCCIONES, LAS RESTRICCIONES Y LOS REQUISITOS ESPECÍFICOS PARA APLICACIONES AÉREAS EN ESE ESTADO O CONDADO. Este producto, al ser mezclado en tanques con dicamba, no se puede aplicar por aire en el estado de California.

Al mezclar en tanque este producto con 2,4-D, solo se pueden utilizar formulaciones de 2,4-D amina para la aplicación aérea en California. Las mezclas de tanque con formulaciones de 2,4-D amina se pueden aplicar por aire en California solo para los sistemas de abranza con barbecho o recudida, y aplicaciones de alfalfa y renovación de pasturas.

No permita que la solución de herbicida pulverice, gotee, se derive o salpique sobre la vegetación deseada, ya que minúsculas cantidades de este producto pueden causar daños graves o destrucción del cultivo, plantas u otras áreas que no se pretendía tratar. Evite la aplicación directa en masas de agua.

Se pueden utilizar aditivos para el control de la deriva. Cuando utilice un aditivo para el control de la deriva, lea detenidamente y siga al pie de la letra todas las precauciones, limitaciones y el resto de la información de la etiqueta del producto.

Asegúrese de aplicar uniformemente, para evitar la aplicación en surcos, irregular o enmarañada. Utilice dispositivos de señalización apropiados.

EL CONTACTO PROLONGADO DE ESTE PRODUCTO CON PARTES DE ACERO QUE NO ESTÁ RECUBIERTO CON ALGÚN TIPO DE PROTECCIÓN, PUEDE DAR COMO RESULTADO LA CORROSIÓN Y POSIBLEMENTE QUE LAS PARTES CAÍEN. Es posible prevenir la corrosión recubriendo las partes con pintura orgánica, que cumpla con las especificaciones aero-espaciales MIL-C-381,3. Al final de cada día de trabajo, para evitar la corrosión de las partes, séquelas, lave muy bien el avión a fin de remover los residuos de este producto que se acumulan durante el rocío o por terremotos. Las partes del tren de aterrizaje son extremadamente susceptibles.

MANEJO DE LA DISPERSIÓN DEL ROCÍO

EVITE LA DISPERSIÓN. DEBE USARSE EXTREMO CUIDADO EN LA APLICACIÓN DE ESTE PRODUCTO PARA EVITAR DAÑOS A LA VEGETACIÓN DESEADA Y A LOS CULTIVOS.

No permita que la solución de herbicida pulverice, gotee, se derive o salpique sobre la vegetación deseada, ya que minúsculas cantidades de este producto pueden causar daños graves o destrucción del cultivo, plantas u otras áreas que no se pretendía tratar.

Es la responsabilidad del aplicador evitar la deriva por rocío en el lugar de aplicación. La interacción de varios factores relacionados con el clima y el equipo determina la cantidad de deriva por rocío. El aplicador y/o el cultivador son responsables de considerar todos estos factores al tomar decisiones.

MANEJO DE LA DISPERSIÓN DEL ROCÍO AÉREO

Deben seguirse los siguientes requerimientos de manejo de la dispersión para evitar el movimiento de esta fuera de objetivo en aplicaciones aéreas a campos de cultivo agrícola:

1. La distancia de la boquilla más cercana en el brazo no debe exceder 3' del largo de la envergadura o rotor.
2. Las boquillas deben estar más altas hacia atrás, paralelas a la corriente de aire, nunca hacia abajo más de 45 grados. En los estados con regulaciones más estrictas estos deben observarse.

Importancia del tamaño de la gotita

La forma más eficaz de reducir la posibilidad de deriva es la aplicación de gotitas grandes. La mejor estrategia de manejo de la deriva es la aplicación de las gotitas más grandes que provean suficiente cobertura y control. La aplicación de gotitas más grandes reduce la posibilidad de deriva, pero no la evita si las aplicaciones se realizan inadecuadamente, o bajo condiciones ambientales desfavorables (vea las secciones de Viento, Temperatura y humedad, e Inversiones de temperatura en esta etiqueta).

Control del tamaño de la gotita

- **Volumen:** Use boquillas de velocidad de flujo alta para aplicar el mayor volumen de rocío práctico. Las boquillas con mayores velocidades de flujo producen gotitas más grandes.
- **Presión:** Use las presiones de rocío más bajas recomendadas para la boquilla. La presión más alta reduce el tamaño de la gotita y no mejora la penetración del rodo. Cuando sean necesarias velocidades de flujo mayores, use boquillas de velocidad de flujo mayor en lugar de aumentar la presión.
- **Numero de boquillas:** Use el número mínimo de boquillas que provean cobertura uniforme.
- **Orientación de la boquilla:** Si orienta las boquillas hacia atrás que hacen el rocío hacia atrás, en sentido paralelo a la circulación del aire, producen gotas más grandes que si las orienta de otro modo. Cuanto más desviadas están del plano horizontal, tanto más pequeñas serán las gotas y tanto mayor el potencial de dispersión.
- **Tipo de boquilla:** Use un tipo de boquilla que este diseñada para la aplicación preventiva. Con la mayoría de los tipos de boquillas, los ángulos de rocío más angostos producen gotas más grandes. Condiere el uso de boquillas de boca dispersa, las gotas tienden a ser más grandes y directamente hacia adelante, pero si las boquillas producen gotas más grandes que otros tipos de boquillas.
- **Longitud del brazo:** Para algunas formulaciones, la reducción de la longitud del brazo del brazo a menos de 3/4 de la envergadura o el ancho del rotor puede reducir más la deriva y reducir el ancho de la zona.
- **Altura de la aplicación:** Las aplicaciones no deben realizarse a una altura inferior de 10 pies por encima de la zona de las plantas más grandes, a menos que se especifique mayor altura por razones de seguridad del operador. La reducción de la aplicación a una altura que sea segura reduce la dispersión de las gotas, la evaporación y el viento.

Ajuste de la hilera

Cuando las aplicaciones se hacen a cabo con viento lateral la deriva de aspersión se desviará a favor del viento. Por ello, en los extremos con o contra el viento del campo el aplicador debe compensar este desplazamiento ajustando la trayectoria del aspersor con el viento. La distancia de ajuste de la hilera debe aumentar cuando aumenta la posibilidad de deriva (mayor viento, gotas más pequeñas, etc.).

Viento

La posibilidad de deriva es mayor con velocidades del viento entre 2 y 10 mph. Sin embargo, muchos factores, incluyendo el tamaño de las gotas y el tipo de equipo determinan la posibilidad de deriva a una velocidad determinada. Debe evitarse la aplicación menos de 2 mph debido a la dirección variable del viento y la posibilidad alta de inversión. NOTA: El terreno local puede influir en los patrones de viento. Cada aplicador debe conocer los patrones (vientos) locales y cómo éstos afectan la deriva.

Temperatura y humedad

Cuando se realizan aplicaciones con humedad relativa baja, hágale al equipo para que produzca gotitas más grandes para compensar por la evaporación. La evaporación de gotitas es más grave cuando las condiciones son calurosas y secas.

Inversiones de temperatura

No deben realizarse aplicaciones durante una inversión de temperatura debido a que es alta la posibilidad de deriva. Las inversiones de temperatura restringen la mezcla de aire vertical lo que causa que pequeñas gotitas suspendidas permanezcan en una zona concentrada. Esta zona puede moverse en direcciones no predichas debido a los vientos variables leves que son comunes durante las inversiones. Las inversiones de temperatura están caracterizadas por temperaturas en aumento con altitud y son comunes en las noches con cobertura de nubes limitada y poco o ningún viento. Comienzan a formarse cuando se mata el sol y a menudo continúan en la mañana. Su presencia puede indicarse por neblina en el suelo sin embargo, si la neblina no está presente, las inversiones también pueden identificarse por el movimiento del humo desde una fuente del suelo a por el género de la humo de un cerillo. El humo en el caso que se mueva lateralmente en una dilatación concentrada bajo condiciones de poco viento indica una inversión, mientras que el humo que se mueva hacia arriba y se disperse rápidamente indica una mezcla de aire vertical.

Áreas sensibles

Este producto sólo se debe aplicar cuando la posibilidad de deriva hacia zonas susceptibles (como por ejemplo áreas residenciales, áreas de agua, hábitat conocido de especies amenazadas o en peligro de extinción, cultivos que no sean el objetivo) sea mínima (como por ejemplo cuando el viento sople lejos de las áreas susceptibles).

7.2 Equipo de difusión terrestre

Para aplicaciones de difusión terrestre, a menos que se indique otra cosa, use este producto a una dosis de 0.8 a 1.6 cuartos por acre para malezas anuales, 1.5 a 4 cuartos por acre para malezas perennes y 4 a 8 cuartos por acre para matorrales leñosos y árboles. Cuando se usa de acuerdo con las instrucciones de la etiqueta, este producto brinda control o control parcial de las malezas herbáceas, matorrales leñosos y árboles mencionados en la sección TIPOS DE MALEZAS CONTROLADAS. Je es la siguiente:

Usar las proporciones recomendadas de este producto con 3 a 40 galones de agua por acre para rociadores de difusión a mano que se indique de otra manera. A medida que la densidad de las malezas aumenta, el volumen de rocío se debe aumentar también para conseguir una cobertura completa, pero siempre dentro de los límites recomendados. A fin de evitar un rocío muy fino, seleccione la boquilla cuidadosamente. Para obtener mejores resultados con agua a nivel del terreno, use boquillas con ascenso plano. Asegúrese de que las gotas del rocío se distribuyan uniformemente.

7.3 Equipos de mano o mochila

Aplique el follaje de la vegetación a ser controlada. En aplicaciones donde se pulveriza hasta mojar, la cobertura del follaje debe ser completa y uniforme. No rocíe hasta el punto de resquebrajamiento. Use rocíos de agua gruesos solamente.

Para control de malezas mencionadas en la sección Malezas anuales de TIPOS DE MALEZAS CONTROLADAS, aplicar una solución al 0.4 por ciento de este producto a malezas de menos de 5 pulgadas de altura o a menos que se indique otra cosa, use una solución al 0.8 por ciento. Hágalo después de la formación de la formación de semillas en caso de que los frutos de la formación de yemas en caso de malezas de hoja ancha.

Para obtener los mejores resultados, utilice una solución al 1.6 por ciento en malezas perennes más difíciles de controlar, como bermudagrass, acedera, wild bindweed, nardo dogbane, milkweed y nardo de Canadá (Canada violet).

Para aplicaciones directas con rocío de bajo volumen, utilice una solución al 4 a 6 por ciento de este producto para control o control parcial de malezas anuales, malezas perennes y matorrales leñosos y árboles. La cobertura del rocío deberá ser uniforme y deberá haber contacto con al menos 50 por ciento del follaje. Es importante lograr la cobertura de la mitad superior de la planta para lograr los mejores resultados. Para asegurar una adecuada cobertura con el rocío que se aplica desde los matorrales leñosos y árboles grandes o altos, cuando el follaje sea escaso y denso, cuando haya muchos árboles.

7.4 Equipo especializado

Este producto puede ser diluido con agua y aplicado usando cualquiera de las siguientes aplicaciones: con pantalla, rociadores con bomba, aplicadores con engrugador o barras de esponja, sobre las malezas indicadas o de presión en cualquier sistema de aplicación indicado en esta etiqueta.

Los rocíos de recirculación dirigen la solución de rocío hacia los tallos de malezas que crecen sobre vegetación deseable, mientras que la solución de rocío que no ha sido interceptada por las malezas se recoge y se retorna al tanque para volverla a usar. EVITE EL CONTACTO DEL HERBICIDA CON LA VEGETACIÓN DESEABLE. YA QUE ES PROBABLE QUE OCURRA DAÑO GRAVE O MUERTE DE LA VEGETACIÓN.

El equipo de aplicación que se utilice por encima de la vegetación deseable debe ajustarse de manera que el rocío de rocío o punto de contacto del aplicador esté al menos 2 pulgadas por encima de la vegetación deseable. Es probable que las gotas, neblina, espuma o salpicaduras de la solución de herbicida sobre la vegetación deseable provoquen decoloración, alforia o destrucción.

Se obtienen mejores resultados cuando una mayor cantidad de la maleza entra en contacto con la solución de herbicida. Las malezas que no entran en contacto con la solución de herbicida no serán afectadas. Esto puede ocurrir en lugares donde las malezas están muy concentradas, cuando la infestación es grave o donde la altura de las malezas es variada, lo que no permite que todas sean tocadas por el herbicida. En estos casos puede ser necesario repetir el tratamiento.

Aplicadores con pantalla y con capucha

Los aplicadores con pantalla o con capucha aplican la solución de herbicida directamente sobre las malezas, al mismo tiempo que protegen la vegetación deseable, para que no sea tocada por el herbicida.

Use boquillas que aseguren un resquebrajamiento uniforme en toda el área tratada. En los rociadores con pantalla, mantenga las pantallas cuidadosamente colocadas a fin de proteger la vegetación deseable. SE DEBE TENER MUCHO CUIDADO PARA EVITAR EL CONTACTO DEL HERBICIDA CON LA VEGETACIÓN DESEABLE.

Aplicadores con engrugador y barras de esponja

Los aplicadores con engrugador o de esponja aplican la solución de herbicida frotando las malezas con un material absorbente que contenga la solución de herbicida.

El equipo debe ser diseñado, mantenido y operado de manera que la solución de herbicida no haga contacto con la vegetación deseable. Opere este equipo a velocidades inferiores a las 5 millas por hora. En áreas donde la infestación de malezas es grave, se puede mejorar la eficacia reduciendo la velocidad así se asegura que el engrugador esté siempre adecuadamente saturado. Se obtienen mejores resultados si se aplica 2 veces en direcciones opuestas.

Evite las filtraciones o el goteo en la vegetación deseable. Ajuste la altura de los aplicadores a fin de asegurar un contacto adecuado con las malezas. Mantenga limpias las superficies de engrugador. tenga en cuenta que, en terreno en declive, la solución de herbicida puede cambiar de lugar, goteando en el extremo inferior y creando las manchas en el extremo superior del aplicador con engrugador.

No use aplicadores con engrugador cuando las malezas estén mojadas.

Mezcle solamente la cantidad de solución que se usará durante el período de un día, debido a que el uso de soluciones de días anteriores puede dar como resultado un efecto menos eficiente. Inmediatamente después de usar este producto, lave bien el aplicador usando bastante agua.

Para aplicadores de cordón o de mecha de esponja: Puede emplearse soluciones que oscilan entre 33 al 75 por ciento de este producto en agua.

Para aplicadores de plástico poroso y sistemas de alimentación por presión: Puede emplearse soluciones que oscilan entre 33 al 100 por ciento de este producto en agua.

Cuando se aplica de acuerdo a las recomendaciones, este producto CONTROLA las siguientes malezas:

Common volunteer	Dickcweed
Panicum, Texas	Spanish needle
Rye, common	Starbush, briar
Shattercane	

Cuando se aplica de acuerdo a las recomendaciones, este producto SUPRIME las siguientes malezas:

Beggarweed, Florida	Ragweed, common
Bermudagrass	Ragweed, giant
Dogbane, nardo	Smartgrass
Dogfennel	Sunflower
Guineagrass	Thistle, Canada
Johnsongrass	Thistle, musk
Milkweed	Vaseygrass
Nightshade, silverleaf	Silverleaf
Ragweed, redroot	

7.5 Sistemas por inyección

Este producto puede usarse con sistemas de rocío por inyección, ya sean aéreos o a nivel del terreno. Puede usarse como concentrado líquido o diluido antes de la inyección en el chorro de rocío. No mezcle este producto con concentrados de otros productos sin diluir cuando use los sistemas por inyección, a menos que se indique de manera específica.

7.6 Equipo de aplicación por goteo controlado

La proporción de este producto aplicado por acre cuando el equipo de aplicación es por goteo controlado (GDA) no debe ser menor que la cantidad indicada en esta etiqueta cuando se usa este equipo de aplicación para aplicaciones de aplicación. Cuando se usa el

equipo aplicador por goteo controlado montado en un vehículo. Use de 3 a 15 galones de agua por acre.

El equipo de aplicación por goteo controlado produce un patrón de riego que no puede verse fácilmente. Se debe tener mucho cuidado para evitar que el riego o la deriva entren en contacto con el follaje o con cualquier otro tejido de vegetación deseable, ya que es probable que ocurra daño o destrucción.

8.0 INSTRUCCIONES SEGÚN ÁREAS Y USO

Este producto puede usarse en áreas no cultivables como aeropuertos, conjuntos de apartamentos, sitios comerciales, orillas de acequias, caminos de entrada de automóviles, acequias secas, canales secos, rillas de vallas, campos de golf, invernaderos, zonas industriales, áreas de paisaje, depósitos de madera, zonas de manufactura, solares municipales, zonas naturales, complejos de oficinas, cultivos ornamentales, parques, áreas de estacionamiento, pasturas, zonas con tanques de petróleo e instalaciones de bombeo, vías de ferrocarril, brederas, áreas recreativas, áreas residenciales, derechos de paso, bordes de carreteras, escuelas, urbanizaciones, complejos deportivos, áreas de almacenamiento, cubiertas, zonas de césped, zonas de servicios públicos, zonas de almacenes, y zonas en las que se realiza gestión de vida silvestre.

Este producto también puede utilizarse en sitios para cultivos no alimenticios, como plantaciones de árboles de Navidad, viveros, o en sitios para la producción de tapas o semilla de césped.

A menos que se indique otra cosa, es posible realizar aplicaciones para controlar cualquier maleza mencionada en la sección TIPO DE MALEZAS CONTROLADAS de esta etiqueta.

8.1 Tocones cortados

El tratamiento de tocones cortados puede hacerse en cualquier área indicada en esta etiqueta. Este producto controla muchas especies de matorrales leñosos y árboles. Aplique este producto usando equipo adecuado para garantizar la cobertura completa del cámbium. Corte los árboles a sus brotes cerca de la superficie del suelo. Aplique una solución de este producto del 50 al 100 por ciento a la superficie recién cortada **inmediatamente** después del corte. Demorar la aplicación puede reducir la eficacia del producto. Para obtener mejores resultados, la aplicación deberá hacerse durante los períodos de crecimiento activo y expansión completa de las hojas.

NO HAGAS LAS APLICACIONES SOBRE TOCONES CORTADOS CUANDO LAS RAÍCES DE LOS MATORRALES LEÑOSOS O ÁRBOLES PEREABLES PUEDEN ESTAR INJERTADAS A LAS RAÍCES DE LOS TOCONES CORTADOS. Algunos brotes, tallos o árboles pueden compartir el mismo sistema radicular. Árboles que están contiguos que tienen la misma edad, altura y separación pueden indicar raíces compartidas. Cuando se trata a uno o más árboles que tienen raíces en común, tanto si están injertados como si comparten el sistema radicular, es probable que se produzca un daño en los brotes/árboles no tratados.

8.2 Preparación del lugar para forestación

Este producto puede ser utilizado para controlar o reducir parcialmente malezas leñosas, árboles y malezas herbáceas en forestaciones y preparar o crear claros para la vida silvestre en estos lugares y para mantener los caminos de las explotaciones forestales.

Este producto puede ser utilizado para preparar el lugar antes de plantar cualquier especie de árbol, como árboles de Navidad, eucaliptos, cultivos de árboles híbridos y viveros dedicados a la silvicultura.

Consulte la sección TIPOS DE MALEZAS CONTROLADAS de esta etiqueta para informarse acerca de las proporciones e instrucciones específicas para la aplicación. Use las dosis más altas de este producto dentro del rango especificado para el control o control parcial de matorrales leñosos, árboles y malezas herbáceas perennes durante el control. Para lograr los mejores resultados, aplique a matorrales jóvenes y árboles en activo crecimiento, después del desarrollo total de las hojas y antes de que las hojas cambien de color y caigan en el suelo. Aumente las dosis dentro del rango especificado para controlar malezas herbáceas en cualquier momento después de la emergencia y antes de que aparezcan las semillas, flores o bayas.

Use las menores dosis de este producto dentro del rango indicado en la etiqueta para el control anual de las malezas herbáceas anuales y las malezas herbáceas perennes en activo crecimiento después de la aparición de las semillas. Flores o bayas. Aplique al follaje de malezas herbáceas anuales en activo crecimiento en cualquier momento después de la emergencia.

Este producto puede ser aplicado inmediatamente después de la siembra.

A menos que se indique otra cosa, no aplique este producto como riego por difusión en la cama de un drenaje, ni en áreas para forestación o árboles de madera dura.

MEZCLAS DE TANQUE: Se pueden emplear mezclas de tanque con este producto para aumentar el poder de control de malezas controladas. Este producto se puede mezclar en tanque con cualquiera de los siguientes. Siempre que estos estén aprobados para el área de uso deseada. Consulte la etiqueta de estos productos para informarse sobre las áreas de uso y las dosis de aplicación aprobadas. Lea y siga cuidadosamente la información y toda la información en las etiquetas de todos los productos utilizados, así como en las etiquetas de los productos que se van a mezclar con este producto.

NOTA: Para la preparación de mezclas de tanque, asegúrese de que el producto que se va a mezclar con este producto antes de plantar las semillas de plantas. Resuelva las preocupaciones del manejo de herbicidas.

Finalmente, asegúrese de que el producto que se va a mezclar con este producto antes de plantar las semillas de plantas de árboles de madera dura.

Concentrado para herbicidas Arsenal	Garlon 3A
Chappin	Garlon 4
Escort	Dust
Escort XP	Dust 4X

Para controlar malezas herbáceas, utilice las proporciones de menor concentración recomendadas para la mezcla de tanque. Para controlar grupos densos o difíciles de brotes leñosos y árboles, utilice las proporciones de mayor concentración recomendadas en mezcla de tanque.

8.3 Áreas no cultivadas y áreas industriales

Úselo aeropuertos, conjuntos de apartamentos, plantaciones de árboles de Navidad, sitios comerciales, Programa de conservación de reservas (CRP), orillas de acequias, caminos de entrada de automóviles, acequias secas, canales secos, rillas de vallas, campos de golf, invernaderos, zonas industriales, áreas de paisaje, depósitos de madera, zonas de manufactura, solares municipales, zonas naturales, complejos de oficinas, cultivos ornamentales, parques, áreas de estacionamiento, pasturas, zonas con tanques de petróleo e instalaciones de bombeo, vías de ferrocarril, brederas, áreas recreativas, áreas residenciales, derechos de paso, bordes de carreteras, escuelas, urbanizaciones, complejos deportivos, áreas de almacenamiento, sucursales, zonas de césped, zonas de servicios públicos, zonas de almacenes, y zonas en la que se realiza gestión de vida silvestre.

Control general de malezas, recortado de hordes y suelo limpio de malezas

El producto puede utilizarse en áreas generales no cultivadas y de cultivos no alimenticios. Puede aplicarse con cualquiera de los equipos descritos en esta etiqueta. Puede usarse para el recortado de bordes alrededor de objetos en áreas no cultivadas para tratamiento localizado de vegetación no deseable y para eliminar las malezas no deseadas que crecen en flecheros de arcusitas establecidas y plantaciones ornamentales. Este producto puede usarse antes de plantar un área con plantas ornamentales, flores, césped (heces o semillas) o antes de colocar asfalto o de comenzar un proyecto de construcción.

Se pueden regular las aplicaciones de este producto a medida que emerjan las malezas para mantener el suelo libre de malezas.

MEZCLAS DE TANQUE: Este producto se puede mezclar en un tanque con los siguientes productos, siempre que éstos estén aprobados para el área de uso deseada. Consulte las etiquetas de estos productos para informarse sobre las áreas de uso y las dosis de aplicación aprobadas. Lea y siga cuidadosamente las indicaciones y toda la información en las etiquetas de todos los herbicidas utilizados. Utilice uniformemente las declaraciones preventivas más restrictivas de cada producto en la mezcla.

El usuario es responsable de garantizar que en la etiqueta del producto utilizado en la mezcla está permitida las aplicaciones específicas cuando se realicen mezclas de tanque con un ingrediente activo genérico de los mencionados a continuación.

Garlon 3	Garlon 35 DF	Roundup 50 WP
Arsenal	Garlon 3A	Sahara DG
Atrazine ¹	Garlon 4	Sentinel AS
Canvel	Goal 2XL	Sentinel WG
Barrido 55WG	Krovel DF	Symazine ¹
Alacida	Dust	Teal DF
Duron	Dust 4X	Transline
Endurance	Duscar	
Escort	Endrinatol 10	
Escort 4X	Flatsau	

Los pueden hacer mezclas de tanque con productos que contienen el ingrediente activo genérico siempre que el producto específico esté registrado para ese uso.

Además de aplicar directamente al tanque para mantener el suelo limpio de malezas, este producto brinda control de las malezas anuales emergidas y control o control parcial de las malezas perennes emergidas, matorrales leñosos y árboles.

Para control o control parcial de las siguientes malezas perennes, aplique 0.8 a 1.6 libras de este producto más 2 a 4 onzas de Dust 4X por acre:

Bahiagrass	Jack-o-burly	Poa
Bermudagrass	Cogon	Quackgrass
Bromesgrass	Fescue, tall	Vaseyagrass
Calleggrass	Johnsongrass	Veran blue

Segado químico - Perennes

Este producto inhibe los pastos perennes indicados en esta sección o se servirán como sustituto de la siega. Aplique 0.4 onzas líquidas de este producto por acre para el tratamiento de plantas tall fescue, fine fescue, bromesgrass, quackgrass o reed canarygrass. Aplique 0.4 onzas líquidas de este producto por acre para el tratamiento de Plectanum, bromegrass. Aplique 0.4 onzas líquidas de este producto por acre para el tratamiento de Plectanum, bromegrass.

Emplee uno de los siguientes donde se pueda tolerar el daño o destrucción temporal en pastos perennes.

Segado químico - Anuales

Para controlar el crecimiento de algunos pastos anuales tales como, Jack-o-burly, reed canarygrass, bromegrass, cogon, quackgrass, Johnsongrass, Plectanum, bromegrass, Veran blue, etc. Aplique 0.4 onzas líquidas de este producto por acre para el tratamiento de plantas tall fescue, fine fescue, bromesgrass, quackgrass o reed canarygrass. Aplique 0.4 onzas líquidas de este producto por acre para el tratamiento de Plectanum, bromegrass. Aplique 0.4 onzas líquidas de este producto por acre para el tratamiento de Plectanum, bromegrass.

Césped latente (durmiente)

Este producto puede usarse para controlar o suprimir muchas malezas anuales y perennes a fin de obtener una distribución eficaz de bermudagrass y bahiagrass latentes. Trate solamente cuando el césped esté latente y antes de reverdecer en la primavera.

Aplique de 5.4 a 51 onzas líquidas de este producto por acre. Aplique las dosis recomendadas en 10 a 40 galones de agua por acre. Utilícelo sólo en áreas donde bermudagrass o bahiagrass sean coberturas de terreno convenientes y donde pueda tolerarse algún daño temporal o descoloración.

Los tratamientos en dosis de 15 onzas líquidas por acre, pueden dañar o retrasar el reverdecer en las áreas donde se hace mucho mantenimiento, como campos de golf y jardines. NO aplique mezclas de tanque de este producto más Qust XP en áreas de césped donde se hace mucho mantenimiento. Para otros usos, vea la sección **Bordes de las carreteras** de esta etiqueta que proporciona dosis para tratamientos de bermudagrass y bahiagrass latentes.

Bermudagrass de crecimiento activo

Este producto puede emplearse para controlar total y parcialmente muchas malezas anuales y perennes a fin de obtener una distribución eficaz de bermudagrass de crecimiento activo. NO aplique más de 13 onzas líquidas de este producto por acre en áreas de céspedes de alto mantenimiento. NO aplique mezclas de tanque de este producto más Qust XP en áreas de céspedes de alto mantenimiento. Para otros usos, vea la sección **Bordes de las carreteras** de esta etiqueta que proporciona dosis para tratamientos de bermudagrass de crecimiento activo. Utilícelo sólo en áreas donde puede tolerarse algún daño temporal o descoloración.

Renovación del césped, producción de semillas o tepes

Este producto controla la mayoría de la vegetación existente antes de la renovación del césped que establecerá céspedes, cultivos o sara-semillas o tepes. Para un control máximo de la vegetación existente, demore la siembra o cobertura de césped a fin de determinar si las partes de la planta que quedan bajo tierra vuelven a crecer. Cuando sea necesario, reñe el tratamiento de mala hierba antes de desarrollar la superficie antes de volver a siembrar. Para controlar más eficazmente las plantas de estación caliente, como bermudagrass, se debe aplicar este producto en el verano o en el otoño, en lugares donde la vegetación existente está creciendo y el césped esté bajo un programa de siega. Aplique este producto después de omitir por lo menos un corte del césped para permitir un crecimiento suficiente a fin de que el suelo sea intercalado por las plantas.

Pueden plantarse los céspedes, cultivos o tepes siguiendo los procedimientos anteriormente mencionados.

Puede utilizarse equipo de mano para el tratamiento in situ de vegetación no deseada que crezca en el césped existente. Puede utilizarse equipo de difusión o de mano para controlar las malas de tepes o de la vegetación no deseada después de cosechar el tepe.

PRECAUCIONES/RESTRICCIONES: No remueva la tierra ni las partes de la planta que están bajo tierra antes del tratamiento. La laboraria y las técnicas de aplicación como parte virtual, preparación y aplicación deben esperar 7 días después de la aplicación a fin de permitir la absorción adecuada en las partes de la planta que están bajo tierra. Si las dosis de aplicación exceden a 2.4 cuartos de galón por acre o menos, no se requiere un período de espera entre el tratamiento y la alimentación o pastoreo del ganado. Si la dosis es mayor de 2.4 cuartos por acre, retire el ganado doméstico antes de la aplicación y espere 3 semanas después de la aplicación antes de pastorear o cosechar.

No utilice el césped que se cultiva para la producción de semillas o tepes para alimentar animales durante 8 semanas después de la aplicación.

8.4 Manejo de hábitat

Restauración y mantenimiento de habitats

Este producto puede ser usado para controlar la vegetación exótica y a las plantas indeseables en áreas de manejo de hábitat y en áreas naturales, incluyendo arbores y refugios para la fauna silvestre. Pueden establecerse acciones para permitir la recuperación de las especies de plantas nativas antes de plantar dichas especies nativas deseables y para otros refugios similares de control de la vegetación de amplia efectividad. A fin de eliminar selectivamente ciertas plantas indeseables, se pueden hacer aplicaciones localizadas para controlar y mejorar el hábitat.

Sitios donde se siembran alimentos para la fauna silvestre

Este producto se puede utilizar como tratamiento a fin de preparar el lugar para controlar malezas anuales y perennes antes de sembrar semillas para aumento de la vida silvestre. Después de aplicar este producto se puede sembrar cualquier especie de alimento para la vida silvestre o bien se puede permitir la recolonización de la zona con especies nativas. No debe laborar para preparar un semillero, de transcurrir 7 días de la aplicación antes de hacerlo a fin de permitir la absorción adecuada en las partes de la planta que están bajo tierra.

8.5 Inyección en tallo hueco

Este producto puede aplicarse con dispositivos de inyección o manuales para administrar las cantidades recomendadas de este producto a las plantas con tallo hueco, para controlar que crezcan en cualquier área de los lugares designados en esta etiqueta.

Para el control de las siguientes plantas de tallo hueco, utilice según las instrucciones:

Semilla de ricino, *Ricinus communis*

Inyecte 5 mil por planta de tallo hueco en el área inferior del tallo hueco.

Hemlock venenoso, *Thuja occidentalis*

inyecte una caña de una hoja por planta 10 a 12 pulgadas por encima de la corona de la raíz con 5 mil de una solución al 5% w/v de este producto.

Hogweed gigante, *Hieracium mantegazzianum*

inyecte una caña de una hoja por planta 12 pulgadas por encima de la corona de la raíz con 5 mil de una solución al 5% w/v de este producto.

Equiseto o cola de caballo, *Equisetum arvense*

inyecte un segmento por encima de la corona de la raíz con 0.5 mil de este producto por tallo. Use una jeringa pequeña que pueda medir esa dosis.

Polígono bohemio, *Polygonum bohemicum*

Inject 5 mil de este producto between the second and third internode.

Polígono gigante, *Polygonum sachalinense*

inyecte 5 mil de este producto por tallo entre el segundo y el tercer entrenudo.

Polígono japonés, *Polygonum cuspidatum*

inyecte 5 mil de este producto por tallo entre el segundo y el tercer entrenudo.

Caña brava, *Arundo donax*

inyecte 6 mil de este producto por tallo entre el segundo y el tercer entrenudo.

Cardo de Canadá, *Cirsium arvense*

Use una jeringa de jeringa para cortar un manojito de 8 a 9 de las plantas más altas en la etapa de floración. Utilice una aguja nueva que se introduce en el centro del tallo y luego se extrae lentamente a medida que inyecta 0.5 mil de este producto en cada tallo.

NOTA: El total de todos los tratamientos no deben superar los 7 cuartos de este producto por acre. A 5 mil por tallos con 7 cuartos se pueden tratar aproximadamente 1300 tallos por acre.

8.6 Aplicación foliar o de difusión en polígono japonés (*Polygonum cuspidatum*) y Oriental bittersweet (*Celastrus orbiculatus*)

Polígono japonés

Para control de polígono japonés (*Polygonum cuspidatum*), este producto se puede aplicar como solución de rocío para mojar al 2% w/v. Asegúrese de que la cobertura sea a fondo cuando empiece tratamientos de rocío para mojar con equipo de mano.

Para tratamientos de difusión, aplique 3.25 cuartos de este producto en 3 a 40 galones por acre como tratamiento de difusión.

La aplicación al final del verano o en el otoño es ideal, cuando las hojas todavía están verdes y después de la formación de los frutos.

Oriental bittersweet

Para control de Oriental bittersweet (*Celastrus orbiculatus*), se puede aplicar este producto como solución de rocío para mojar al 2% w/v. Asegúrese de que la cobertura sea a fondo cuando empiece tratamientos de rocío para mojar con equipo de mano.

Para tratamientos de difusión, aplique 3.5 cuartos de este producto en 3 a 40 galones por acre como tratamiento de difusión.

La aplicación al final del verano o en el otoño es ideal, cuando las hojas todavía están verdes y después de la formación de los frutos.

8.7 Inyección y chorro (matorrales leñosos y árboles)

Este producto puede aplicarse por inyección o chorro para el control total o parcial de matorrales leñosos y árboles. Aplique este producto usando equipo adecuado que debe ser capaz de penetrar en el tallo vivo. Aplique el equivalente a 1 mil de este producto por cada 2.5 a 3 pulgadas de diámetro del tronco y la altura del peco (DSM en inglés). La mejor forma de hacerlo es aplicando una solución a una concentración del 50 al 100 por ciento de este producto con un chorro continuo alrededor del árbol en cortes espaciados uniformemente alrededor del árbol y en debajo del nivel de las ramas. A medida que el diámetro del árbol aumenta, se obtienen mejores resultados con el chorro continuo alrededor del árbol en cortes espaciados muy cerca entre sí alrededor del árbol. Entre las aplicaciones, sus permisos de cumplimiento de material cuando se chorrea alrededor del árbol y sobre las cortes en árboles que tienen la facilidad de exudar látex de los cortes. En especies de este tipo, haga los cortes de manera oblicua a fin de producir el efecto de copa y use el producto a una concentración del 100 por ciento. Para obtener mejores resultados, la aplicación debe tener lugar durante periodos de crecimiento activo y después de exudación completa de las hojas.

8.8 Plantas ornamentales, viveros y árboles de Navidad

Post-dirigido y recortado de bordes

Este producto puede ser utilizado como un post-dirigido alrededor de árboles ornamentales leñosos establecidos como arborescencias, así como también puede utilizarse en viveros y árboles de Navidad. Este producto también puede ser utilizado para el control de las malezas de los árboles establecidos, plantas ornamentales, plantas en macetas y plantas de interior.

Las plantas deseables pueden ser protegidas de la solución de rocio usando pantallas o cubriéndolas con cartón o con algún otro material impermeable. ESTE PRODUCTO NO SE RECOMIENDA PARA ROCIARLAS DESDE ARRIBA SOBRE PLANTAS ORNAMENTALES Y ÁRBOLES DE NAVIDAD. Se debe tener mucho cuidado para que el rocio, niebla o vapor de este producto no hagan contacto con el follaje o la corteza de las especies ornamentales establecidas.

Preparación del terreno

Este producto puede ser usado antes de plantar cualquier tipo de planta ornamental de vivero o árboles de Navidad.

Aplicadores con enjugador

Este producto se puede usar mediante aplicadores de mecha de esponja u otro tipo de aplicadores con enjugador adecuados, para controlar total o parcialmente la vegetación deseable alrededor de eucaliptos o álamos. Consulte la sección Equipo especializado de esta etiqueta para obtener mayor información sobre el uso adecuado de los aplicadores con enjugador.

Invernaderos/cobertizos

Este producto puede ser usado para controlar las malezas que estén creciendo en o alrededor de los invernaderos y cobertizos. No debe haber vegetación deseable durante la aplicación y los equipos de ventilación deben estar apagados.

8.9 Parques, áreas recreativas y residenciales

Este producto puede usarse en parques, áreas recreativas y residenciales. Puede aplicarse con cualquiera de los equipos descritos en esta etiqueta. Puede usarse para el control de bordes alrededor de árboles, vallas, caminos, alrededor de edificios, aceras y otros objetos en estas áreas. Puede usarse para tratamiento localizado de vegetación no deseable y para eliminar las malezas no deseadas que crecen en techos de arbustos, instalaciones y plantaciones ornamentales. Este producto puede usarse antes de plantar un área con plantas ornamentales, floración ciega (flores o semillas) o antes de colocar asfalto o de comenzar un proyecto de construcción.

Todas las instrucciones de la sección **Áreas no cultivadas y áreas industriales** son válidas para los parques y áreas recreativas.

8.10 Vías de ferrocarril

Las instrucciones en la sección **Áreas no cultivadas y áreas industriales** se pueden usar en las vías de ferrocarril.

Suelo vacío, balastos y bordes, cruces y tratamiento localizado

Este producto puede ser usado para mantener el suelo limpio de malezas en balastos y bordes de las vías de ferrocarril. Pueden hacerse aplicaciones repetidas de este producto a medida que emerjan las malezas para mantener el suelo limpio de malezas. Este producto puede usarse para controlar las malezas altas y mejorar la línea visual en los cruces de ferrocarril y reducir la necesidad de segar a lo largo de las servidumbres de vía. Para aplicaciones en los cruces pueden usarse hasta 80 galones de solución de rocio por acre.

MEZCLA DE TANQUE. Este producto se puede mezclar en un tanque con los siguientes productos para tratamientos en balasto, bordes, tratamiento cruzado y suelo vacío, siempre que éstos estén aprobados para el área de uso deseada. Consulte las etiquetas de estos productos para información sobre los lugares de uso no cultivados y las dosis de aplicación aprobadas. Lea y siga cuidadosamente las indicaciones y toda la información en las etiquetas de todos los herbicidas utilizados. Utilice conforme con las declaraciones preventivas más restrictivas de cada producto en la mezcla.

El usuario es responsable de garantizar que en la etiqueta del producto utilizado en la mezcla estén permitidas las aplicaciones específicas cuando se realicen mezclas de tanque con un ingrediente activo genérico de los mencionados a continuación.

atrazina	hyvar 4	picazina
dicamba	hyvar 4-L	Spine 80DF
dicamba	Krovar 2F	Telar DF
Escout	Dust	Transline
Escout 4P	Dust 4P	Volcar 4
Carlin 34	Outrider	Volcar 4
Carlin 4	Carana DG	Z 4-DF

Se pueden hacer mezclas de tanque con productos que contengan el ingrediente activo genérico siempre que el producto específico esté registrado para este uso.

Control de matorrales

Este producto puede ser usado para controlar matorrales, arbustos y árboles en las servidumbres de vía. Aplique de 1 a 3 cuartos de galón de este producto por área para aplicaciones en terrenos con un promedio de 100 plantas por acre. Puede usarse en hasta 30 pulgadas de altura de la planta adulta. Aplique una solución de 1.5 a 1.6 por ciento de este producto cuando haga aplicaciones de rocio para mejorar a gran escala. Aplique una solución de 1 a 2 por ciento de este producto cuando haga aplicaciones de rocio en góndolas de camión para un tratamiento localizado. Este producto puede ser mezclado con los herbicidas siguientes para un mejor control de los matorrales, arbustos y árboles.

atrazina	Carlin 4	Carlin 40
Escout	Carlene	Escout 4P
Escout 4P	Carlene 4	Escout 4
Carlin 34	Carlene 20	
Carlin 4	Carlene 4	

Mantenimiento del Bermudagrass

Este producto puede ser usado para controlar o controlar parcialmente muchas malezas anuales y perennes para el mantenimiento eficaz de bermudagrass que esté creciendo activamente. Aplique de 1.3 a 3.8 onzas líquidas de este producto en un máximo de 80 galones de solución de rocio por acre. Para tratar malezas anuales que tengan menos de 6 pulgadas de altura (o el largo de los tallos), use las proporciones más bajas. Use la proporción más alta a medida que las malezas aumenten de tamaño o cuando estén cerca de la floración o de la formación de semillas. Estas proporciones también controlar parcialmente las siguientes especies perennes.

Bahiagrass	Johnsongrass
Bluestem silver	Trumpetcrimper
Parque tall	Vaseygrass

Aplique 6.4 a 9.1 onzas líquidas de este producto en una mezcla de tanque con 0.75 a 1.33 onzas de herbicida Outrider por acre. Lea y siga todas las indicaciones de la etiqueta para el herbicida Outrider.

Este producto puede ser mezclado con Dust XP. Si se mezcla en tanques, no use más de 1.3 a 3.8 onzas líquidas de este producto con 1 a 2 onzas de Dust XP por acre. Para tratar malezas anuales, estadas en esta etiqueta y en la etiqueta de Dust XP que tenga menos de 6 pulgadas de altura (o el largo de los tallos), use las proporciones más bajas de cada producto. Use la proporción más alta a medida que las malezas anuales aumenten de tamaño o cuando estén cerca de la floración o de la formación de semillas. Estas proporciones también controlar parcialmente las siguientes malezas perennes.

Bahiagrass	Parque tall
Blackberry	Johnsongrass
Bluestem silver	Parque
Bromsedge	Raspberry
Callisgrass	Trumpetcrimper
Canberry	Vaseygrass
Cock curly	Vervain blue
Coigannel	

Puede solamente en bermudagrass que no estén establecidos. Como resultado del tratamiento al bermudagrass puede sufrir deterioro, pero volverá a crecer si se siega. No se recomienda repetir el tratamiento en la misma estación, ya que esto puede ocasionar daños graves al bermudagrass.

8.11 Bordes de las carreteras

Todas las instrucciones de la sección **Áreas no cultivadas y áreas industriales** son válidas para los bordes de las carreteras.

Tratamiento de bordes

Este producto puede ser usado en los bordes de las carreteras. Puede aplicarse con rociadores de brazos, rociadores con brazos y pantalla, bocanillas desmontables de gran volumen, equipo de mano y equipos similares.

Barandas y otros obstáculos para la siega

Este producto puede ser usado para controlar las malezas que crecen debajo de las barandas y alrededor de la señalización y otros objetos en los bordes de las carreteras.

Tratamiento localizado

Este producto puede ser usado como tratamiento localizado para controlar la siega en áreas no deseadas que crecen a lo largo de los bordes de las carreteras.

MEZCLA DE TANQUE. Este producto puede mezclarse en tanque con los siguientes productos para tratamientos de bordes, los cuales localizados y de suelo vacío o siempre y cuando todos los productos estén aprobados para su uso en dichos sitios. Consulte las etiquetas de estos productos para informarse sobre los lugares de uso no cultivados y las dosis de aplicación aprobadas. Lea y siga cuidadosamente las indicaciones y toda la información en las etiquetas de todos los herbicidas utilizados. Utilice conforme con las declaraciones preventivas más restrictivas de cada producto en la mezcla.

El usuario es responsable de garantizar que en la etiqueta del producto utilizado en la mezcla estén permitidas las aplicaciones específicas cuando se realicen mezclas de tanque con un ingrediente activo genérico de los mencionados a continuación.

atrazina	Landmark II MP	Sanara DG
Crossbow	Landmark 4P	picazina
dicamba	Dust	Carlin 4
dicamba	Dust 4P	Carlin WEG
Escout	Outrider	Telar 4F
Escout 4P	pendimethalin	Volcar 4P
Fluazifluro	Paranao	Volcar 4
Gallery 25 DF	Paranao 20	
Krover 2F	Parat	
Landmark MP	Carlene 50 WEG	

Se pueden hacer mezclas de tanque con productos que contengan el ingrediente activo genérico siempre que el producto específico esté registrado para este uso.

Mantenimiento del Bermudagrass y Bahiagrass

Aplicaciones cuando estén latentes (dormientes)

Este producto puede ser usado para controlar o controlar parcialmente muchas malezas anuales y perennes y tallarlas para el mantenimiento de bermudagrass y bahiagrass latentes. Para mantener el control de malezas, aplicar de 1.3 a 3.8 onzas líquidas de este producto.

Marcan una adopción de aplicación diseminada a nivel del terreno. (c) Los comederos y comederos con bebederos con bebederos tipo **plano** plano. Estas especies serán comulgadas y comulgadas permanentemente usando 11 onzas líquidas de este producto por acre. Las aplicaciones deben hacerse usando 2 a 3 galones por volumen de la sustancia. (d) **plano** por acre. Use **plano** que garanticen una cobertura completa del follaje. (e) **plano** al tratamiento químico. **plano** están en su plena capacidad de **plano**.

*Control group.

9.3 Matorrales leñosos y árboles

Antes de este proceso, después de la expansión completa de las cajas, a menudo se produce la contracción de una proporción mayor o menor de las áreas más altas y/o áreas de crecimiento más bajas. En simulaciones útiles lo propio es maximizar para plantas que han alcanzado la etapa de crecimiento latente. Se obtienen los mejores resultados cuando la adicción de sales entre el final del verano y el inicio, después de la formación de la raíz.

Las zonas áridas se ven afectadas negativamente durante los períodos de sequía que se presentan en primavera y comienzo de verano cuando las especies de pasturas tienen gran porcentaje de muerte y están en floración.

Quando haja fragmentos de madeira para fazer um equid de mão, assegure-se de que a cobertura seja total. Quando use equid de mão para tratamentos locais, não se preocupe com o custo. O melhor produto é a solução 1:4 a 6 por parte de água produzida.

Especies de malezas	Proporción (cuartos per acre)	% de solución de mano
Alfalfa*	0.8	1.6
Albataronad*	3.2	1.2
Amor (lennel)	1.6 - 3.2	0.8 - 1.6
Balmegrass	2.1 - 4	1.6
Bachgrass, European (<i>Ammophila arenaria</i>)	-	4
Bentgrass*	3.2	1.6
Bermudagrass	4	1.6
Bermudagrass, water (knotgrass)	1.2	1.6
Bindweed, field	3.2 - 4	1.6
Bluegrass, Kentucky	1.6	1.6
Bindweed, Texas	3.2 - 4	1.6
Brackenfern	2.1 - 3.2	0.6 - 1.2
Bromegrass smooth	1.6	1.6
Bucktail, rough-leaved	-	3
Cenarygrass, small	1.6 - 2.1	1.6
Cenarygrass, small	2.1 - 1	1.6
Clover, red, white	2.1 - 4	1.6
Cogongrass	2.1 - 3	1.6
Callisgrass	2.1 - 4	1.6
Candlecane	2.1 - 1	1.6
Dock, curly	2.1 - 4	1.6
Dogbane, hemp	1.6	1.6
Fescue (except tall)	2.1 - 4	1.6
Fescue, tall	0.8 - 2.1	1.6

Para obter o melhor resultado, deve-se escolher as lâminas de maior qualidade, aplicar o produto na vez certa, esperar o tempo necessário para a formação da película, e que se regenera de novas e ininterruptas. Assim, os seguintes cuidados são essenciais: de modo nenhum ao aplicar o produto, nem depois de 10 dias, é importante voltar de novo a aplicar o revestimento para melhorar o resultado e obter o melhor desempenho da película.

Especie de maleza	Proporción por difusión (cuarto de galón por acre)	% de solución de mano de roció para mojar
Alder	2.4 - 3.2	0.8 - 1.2
Alder	1.6 - 4	0.3 - 1.6
Aspen quaking	1.6 - 2.4	0.8 - 1.2
Bearclaw (Bearmar)	1.6 - 4	1.6 - 1.6
Beech	1.6 - 4	0.5 - 1.6
Birch	1.6	3.8
Blackberry	2.4 - 3.2	0.8 - 1.2
Marble	1.6 - 4	0.3 - 1.6
Bracken	1.6 - 4	0.8 - 1.6
Broom, French, Common	1.6 - 4	1.2 - 1.6
Buckwheat, California	1.6 - 3.2	0.5 - 1.6
Cassia	1.6 - 4	0.3 - 1.6

Especie de maleza	Proporción por difusión (cuarto de galón por acre)	% de solución de mano de roció para mojar
Catsclaw*	—	0.8 - 1.2
Ceanothus*	1.6 - 4	0.8 - 1.5
Chamisa*	1.6 - 4	0.8
Cherry bitter, black, pin	1.6 - 2.1	0.8 - 1.2
Coyote brush	2.4 - 3.2	1.2 - 1.6
Deerweed	1.6 - 4	0.8
Dogwood*	1.6 - 4	0.8 - 1.5
Elderberry	1.6	0.8
Elm*	1.6 - 4	0.8 - 1.5
Eucalyptus	—	1.6
Gorse*	1.6 - 4	0.6 - 1.6
Hesperis*	1.6 - 3.2	0.8 - 1.6
Hawthorn	1.6 - 2.4	0.8 - 1.2
Hazel	1.6	0.8
Hickory*	1.6 - 4	0.8 - 1.6
Honey suckle	2.4 - 3.2	0.8 - 1.2
Hornbeam, American*	1.6 - 4	0.8 - 1.6
Junco (Pueraria lobata)	3.2	1.6
Larrea, black*	1.6 - 3.2	0.8 - 1.6
Madrone, red*	—	1.6
Manzanita*	1.6 - 4	0.8 - 1.6
Maple, red (Acer rubra)	1.6 - 3.2	0.8 - 1.2
Maple, sugar (Acer saccharum)	—	0.8 - 1.2
Monkey flower*	1.6 - 3.2	0.8 - 1.6
Oak, black, white*	1.6 - 3.2	0.8 - 1.6
Oak, post	2.4 - 3.2	0.8 - 1.2
Oak, northern, pin	1.6 - 3.2	0.8 - 1.2
Oak, scrub*	1.6 - 3.2	0.8 - 1.2
Oak, southern, red	1.6 - 2.4	0.8 - 1.2
Pagoda tree, Brazilian (Florida holly)*	1.6 - 4	0.8 - 1.6
Persimmon*	1.6 - 4	0.8 - 1.6
Pine	1.6 - 4	0.8 - 1.6
Poison ivy	3.2 - 4	1.6
Rhus, oak	3.2 - 4	1.6
Poplar, yellow*	1.6 - 4	0.8 - 1.6
Rubus, eastern	1.6 - 4	0.8 - 1.6
Rose, multiflora	1.6	0.8
Russian olive*	1.6 - 4	0.8 - 1.6
Sage, black	1.6 - 3.2	0.8
Sage, white*	1.6 - 3.2	0.8 - 1.6
Sage brush, California	1.6 - 3.2	0.8
Sambucus	1.6	0.8
Salicoidar*	1.6 - 4	0.8 - 1.6
Sassaparilla*	1.6 - 4	0.8 - 1.6
Saurwood*	1.6 - 4	0.8 - 1.6
Sumac, laurel, poison, smooth	1.6 - 4	0.8 - 1.6
Sugarbush, winged*	1.6 - 4	0.8 - 1.2
Sweetgum	1.6 - 4	0.8 - 1.2
Swordfern*	1.6 - 4	0.8 - 1.6
Tallowtree, Chinese	—	0.8
Tan oak, black*	—	1.6
Thimbleberry	1.6	0.8
Yucca, tree*	1.6 - 3.2	0.8 - 1.6
Yucca*	—	1.6
Yucca, yellow*	1.6 - 4	0.8 - 1.2
Vine maple*	1.6 - 4	0.8 - 1.6
Virginia creeper	1.6 - 4	0.8 - 1.6
Waxmyrtle, southern*	1.6 - 4	0.8 - 1.6
Willow	1.6	2.4
Yerba Santa*	—	1.6

*Control manual

10.0 LIMITES EN LA GARANTÍA Y EN LA RESPONSABILIDAD

Monsanto Compañía garantiza que este producto concuerda con la descripción química y física y es razonablemente adecuado para los propósitos para los que se describe en las Instrucciones Completas para el uso. Ninguna garantía o responsabilidad se da por el uso de este producto en condiciones que no se mencionan en las Instrucciones Completas. Ninguna garantía expresa o implícita se da acerca de la idoneidad para un uso particular o para un propósito. Esta garantía no se aplica a los daños indirectos o consecuentes que puedan ocurrir.

El comprador y usuario de este producto aceptan que el producto se aplica de acuerdo con las instrucciones y que el usuario acepta la responsabilidad por cualquier daño o pérdida que resulte de la aplicación o uso del producto.

El usuario acepta que el producto se aplica de acuerdo con las instrucciones y que el usuario acepta la responsabilidad por cualquier daño o pérdida que resulte de la aplicación o uso del producto. El usuario acepta que el producto se aplica de acuerdo con las instrucciones y que el usuario acepta la responsabilidad por cualquier daño o pérdida que resulte de la aplicación o uso del producto.

no limitándose a incompatibilidad con productos que no sean los señalados en las instrucciones, aplicación y contacto con vegetación que no se quiera destruir. Condiciones climáticas inusuales, condiciones de clima que estén fuera de los límites que se consideran normales en el lugar de la aplicación y para el periodo de tiempo en el cual se aplica, así como condiciones de clima que estén fuera de los límites indicados en las instrucciones, salivaciones que no estén explícitamente aconsejadas en las instrucciones, condiciones de humedad que estén fuera de los límites establecidos en las instrucciones, o la presencia de productos en la tierra o sobre ella, en las plantas o en la vegetación que se está tratando, diferentes a los indicados en las instrucciones.

Esta Compañía no garantiza ninguno de los productos reformulados o reempaquetados de este producto, excepto de acuerdo a los requisitos de la administración de esta Compañía y con el permiso expreso de esta Compañía.

SEGUN LO ESTABLECIDO EN LA LEY VIGENTE, LA ÚNICA Y EXCLUSIVA COMPENSACIÓN AL USUARIO O COMPRADOR Y EL LÍMITE DE RESPONSABILIDAD DE ESTA COMPAÑÍA O DE CUALQUIER OTRO VENDEDOR POR CUALQUIER PERDIDA O POR TODAS LAS PERDIDAS, PERJUICIOS O DAÑOS QUE RESULTASEN DEL USO O MANEJO DE ESTE PRODUCTO INCLUYENDO RECLAMOS QUE SE BASEN EN UN CONTRATO, NEGLIGENCIA, ESTRUCTURA RESPONSABILIDAD Y OTROS ACTOS ILÍCITOS, SERÁ EL PRECIO PAGADO POR EL USUARIO O EL COMPRADOR POR LA CANTIDAD INVOLUCRADA DE ESTE PRODUCTO O LA ELECCIÓN DE ESTA COMPAÑÍA O DE OTRO VENDEDOR, EL REEMPLAZO DE DICHA CANTIDAD O SI NO SE OBTUVO MEDIANTE COMPRA SE REEMPLAZARÁ DICHA CANTIDAD DEL PRODUCTO EN NINGÚN CASO ESTA COMPAÑÍA U OTRO VENDEDOR SERÁN RESPONSABLES POR DAÑOS INCIDENTALES, CONSECUENTES O ESPECIALES.

En el momento de usar el producto, se asume que el comprador y todos los usuarios han aceptado las condiciones de los LÍMITES EN LA GARANTÍA Y EN LA RESPONSABILIDAD que no pueden variar por medio de ningún acuerdo verbal o escrito. Si las condiciones son inaceptables, devuelva el producto inmediatamente sin abrir el recipiente.

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Todos las otras marcas registradas son la propiedad de sus dueños respectivos.

Este producto está protegido por la patente de los Estados Unidos No. 4,725,531. No se han otorgado licencias bajo ninguna patente que no sea de los Estados Unidos.

EPA Reg. No. 624-601

En caso de que se presente una emergencia relacionada con este producto, llame al 1-800-4-A-GRASS o al 1-800-4-A-GRASS, al teléfono (314) 594-4700.

MONSANTO



Circle 100
MONSANTO COMPANY
800 N. LINCOLN BLVD.
ST. LOUIS, MISSOURI 63101-5000
(314) 594-4700

MONSANTO COMPANY

Safety Data Sheet Commercial Product

1. PRODUCT AND COMPANY IDENTIFICATION

1.1. Product identifier

Roundup PRO® Herbicide

1.1.1. Chemical name

Not applicable.

1.1.2. Synonyms

None.

1.1.3. EPA Reg. No.

524-475

1.2. Product use

Herbicide

1.3. Company

MONSANTO COMPANY, 800 N. Lindbergh Blvd., St. Louis, MO, 63167

Telephone: 800-332-3111, Fax: 314-694-5557

E-mail: safety.datasheet@monsanto.com

1.4. Emergency numbers

FOR CHEMICAL EMERGENCY, SPILL LEAK, FIRE, EXPOSURE, OR ACCIDENT Call
CHEMTREC - Day or Night: 1-800-424-9300 toll free in the continental U.S., Puerto Rico, Canada, or
Virgin Islands. For calls originating elsewhere: 703-527-3887 (collect calls accepted).
FOR MEDICAL EMERGENCY - Day or Night: +1 (314) 694-4000 (collect calls accepted).

2. HAZARDS IDENTIFICATION

2.1. Classification

OSHA Hazard Communication Standard, 29 CFR 1910.1200 (2012)

Acute toxicity, inhalation - Category 4

2.2. Label elements

2.2.1. Signal word

WARNING!

2.2.2. Hazard pictogram/pictograms



2.2.3. Hazard statement/statements

Harmful if inhaled.

2.2.4. Precautionary statement/statements

Avoid breathing mist, vapours or spray.

Use only outdoors or in a well-ventilated area.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER or doctor/physician if you feel unwell.

2.3. Appearance and odour (colour/form/odour)

Clear-Amber /Liquid / Sweet

2.4. OSHA Status

This product is hazardous according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Refer to section 11 for toxicological and section 12 for environmental information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Active ingredient

Isopropylamine salt of N-(phosphonomethyl)glycine; {Isopropylamine salt of glyphosate}

Composition

COMPONENT	CAS No.	% by weight (approximate)
Isopropylamine salt of glyphosate	38641-94-0	41
Other ingredients		59

Trade secret composition.

4. FIRST AID MEASURES

Use personal protection recommended in section 8.

4.1. Description of first aid measures

- 4.1.1. **Eye contact:** If in eyes, hold eye open and rinse slowly and gently for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.
- 4.1.2. **Skin contact:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
- 4.1.3. **Inhalation:** If inhaled, move person to fresh air. If person is not breathing, call emergency number or ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.
- 4.1.4. **Ingestion:** Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison center or doctor. Do not give anything by mouth to an unconscious person.

4.2. Most important symptoms and effects, both acute and delayed

- 4.2.1. **Eye contact, short term:** May cause temporary eye irritation.
- 4.2.2. **Skin contact, short term:** Not expected to produce significant adverse effects when recommended use instructions are followed.
- 4.2.3. **Inhalation, short term:** Not expected to produce significant adverse effects when recommended use instructions are followed.
- 4.2.4. **Single ingestion:** Not expected to produce significant adverse effects when recommended use instructions are followed.

4.3. Indication of any immediate medical attention and special treatment needed

- 4.3.1. **Advice to doctors:** This product is not an inhibitor of cholinesterase.
- 4.3.2. **Antidote:** Treatment with atropine and oximes is not indicated.

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

5.1.1. Recommended: Water, foam, dry chemical, carbon dioxide (CO₂)

5.2. Special hazards

5.2.1. Unusual fire and explosion hazards

Minimise use of water to prevent environmental contamination.
Environmental precautions: see section 6.

5.2.2. Hazardous products of combustion

Carbon monoxide (CO), phosphorus oxides (P_xO_y), nitrogen oxides (NO_x)

5.3. Fire fighting equipment: Self-contained breathing apparatus. Equipment should be thoroughly decontaminated after use.

5.4. Flash point

Does not flash.

6. ACCIDENTAL RELEASE MEASURES

6.1. Environmental precautions

SMALL QUANTITIES:

Low environmental hazard.

LARGE QUANTITIES:

Minimise spread.

Keep out of drains, sewers, ditches and water ways.

6.2. Methods for cleaning up

SMALL QUANTITIES:

Flush spill area with water.

LARGE QUANTITIES:

Absorb in earth, sand or absorbent material.

Dig up heavily contaminated soil.

Collect in containers for disposal.

Refer to section 7 for types of containers.

Flush residues with small quantities of water.

Minimise use of water to prevent environmental contamination.

Refer to section 13 for disposal of spilled material.

Use handling recommendations in Section 7 and personal protection recommendations in Section 8.

7. HANDLING AND STORAGE

Good industrial practice in housekeeping and personal hygiene should be followed.

7.1. Precautions for safe handling

Avoid contact with eyes. When using do not eat, drink or smoke. Wash hands thoroughly after handling or contact. Wash contaminated clothing before re-use. Thoroughly clean equipment after use. Do not contaminate drains, sewers and water ways when disposing of equipment rinse water. Refer to section 13 of the safety data sheet for disposal of rinse water.

7.2. Conditions for safe storage

Minimum storage temperature: -15 °C

Maximum storage temperature: 50 °C

Compatible materials for storage: stainless steel, fibreglass, plastic, glass lining

Incompatible materials for storage: galvanised steel, unlined mild steel, see section 10.

Keep out of reach of children.

Keep away from food, drink and animal feed.

Keep only in the original container.

Keep container tightly closed in a cool, well-ventilated place.

Partial crystallization may occur on prolonged storage below the minimum storage temperature.

If frozen, place in warm room and shake frequently to put back into solution.

Minimum shelf life: 5 years.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Airborne exposure limits

Components	Exposure Guidelines
Isopropylamine salt of glyphosate	No specific occupational exposure limit has been established.
Other ingredients	No specific occupational exposure limit has been established.

8.2. Engineering controls: Provide local exhaust ventilation.

8.3. Recommendations for personal protective equipment

8.3.1. Eye protection: If there is significant potential for contact: Wear chemical goggles.

8.3.2. Skin protection: No special requirement when used as recommended. If repeated or prolonged contact: Wear chemical resistant gloves. Applicators and other handlers must wear: Wear long sleeved shirt, long pants and shoes with socks.

8.3.3. Respiratory protection: No special requirement when used as recommended.

When recommended, consult manufacturer of personal protective equipment for the appropriate type of equipment for a given application.

9. PHYSICAL AND CHEMICAL PROPERTIES

These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

Colour/colour range:	Clear - Amber
Odour:	Sweet
Form:	Liquid
Physical form changes (melting, boiling, etc.):	
Melting point:	Not applicable.
Boiling point:	No data.
Flash point:	Does not flash.
Explosive properties:	No explosive properties
Auto ignition temperature:	452 °C
Self-accelerating decomposition temperature (SADT):	No data.
Oxidizing properties:	No data.

Specific gravity:	1.169 @ 20 °C / 15.6 °C
Vapour pressure:	25 mmHg 24 °C
Vapour density:	Not applicable.
Evaporation rate:	No data.
Dynamic viscosity:	73.2 cP
Kinematic viscosity:	62.47 cSt @ 20 °C
Density:	1.17 g/cm ³ @ 20 °C
Solubility:	Water: Completely miscible.
pH:	4.4 - 5.0 @ 80 g/l
Partition coefficient:	log Pow: < -3.2 @ 25 °C (glyphosate)

10. STABILITY AND REACTIVITY

10.1. Reactivity

Reacts with galvanised steel or unlined mild steel to produce hydrogen, a highly flammable gas that could explode.

10.2. Stability

Stable under normal conditions of handling and storage.

10.3. Possibility of hazardous reactions

Reacts with galvanised steel or unlined mild steel to produce hydrogen, a highly flammable gas that could explode.

10.4. Incompatible materials

galvanised steel; unlined mild steel; see section 10.;
Compatible materials for storage: see section 7.2.

10.5. Hazardous decomposition

Thermal decomposition: Hazardous products of combustion: see section 5.

11. TOXICOLOGICAL INFORMATION

This section is intended for use by toxicologists and other health professionals.

Likely routes of exposure: Skin contact, eye contact

Potential health effects

Eye contact, short term: May cause temporary eye irritation.

Skin contact, short term: Not expected to produce significant adverse effects when recommended use instructions are followed.

Inhalation, short term: Not expected to produce significant adverse effects when recommended use instructions are followed.

Single ingestion: Not expected to produce significant adverse effects when recommended use instructions are followed.

Data obtained on product and components are summarized below.

Acute oral toxicity

Rat, LD50: 5,108 mg/kg body weight
Practically non-toxic.

Acute dermal toxicity

Rat, LD50 (limit test): > 5,000 mg/kg body weight
Practically non-toxic. No mortality.

Acute inhalation toxicity

Rat, LC50, 4 hours, aerosol: 2.9 mg/L
Other effects: weight loss, breathing difficulty

Practically non-toxic.

Skin irritation

Rabbit, 6 animals, OECD 404 test:

Days to heal: 3

Primary Irritation Index (PII): 0.5/8.0

Essentially non irritating.

Eye irritation

Rabbit, 6 animals, OECD 405 test:

Days to heal: 3

Slight irritation.

Skin sensitization

Guinea pig, 3-induction Buehler test:

Positive incidence: 0 %

N-(phosphonomethyl)glycine; (glyphosate acid)

Genotoxicity

Not genotoxic.

Carcinogenicity

Not carcinogenic in rats or mice. Listed as Category 2A by the International Agency for Research on Cancer (IARC) but our expert opinion is that classification as a carcinogen is not warranted.

Reproductive/Developmental Toxicity

Developmental effects in rats and rabbits only in the presence of significant maternal toxicity.

Reproductive effects in rats only in the presence of significant maternal toxicity.

12. ECOLOGICAL INFORMATION

This section is intended for use by ecotoxicologists and other environmental specialists.

Aquatic toxicity, fish

Rainbow trout (*Oncorhynchus mykiss*):

Acute toxicity, 96 hours, static, LC50: 5.4 mg/L

Moderately toxic.

Aquatic toxicity, invertebrates

Water flea (*Daphnia magna*):

Acute toxicity, 48 hours, static, EC50: 11 mg/L

Slightly toxic.

Arthropod toxicity

Honey bee (*Apis mellifera*):

Oral/contact, 48 hours, LD50: > 100 µg/bee

Practically non-toxic.

Similar formulation

Aquatic toxicity, algae/aquatic plants

Green algae (*Selenastrum capricornutum*):

Acute toxicity, 72 hours, static, EbC50 (biomass): 12.4 mg/L

Slightly toxic.

Green algae (*Selenastrum capricornutum*):

Acute toxicity, 72 hours, static, NOEC: 6.3 mg/L

Similar formulation

Soil organism toxicity, microorganisms

Nitrogen and carbon transformation test:

30 L/ha, 28 days: Less than 25% effect on nitrogen or carbon transformation processes in soil.

N-(phosphonomethyl)glycine: { glyphosate acid}

Avian toxicity

Bobwhite quail (*Colinus virginianus*):

Acute oral toxicity, single dose, LD50: > 3,851 mg/kg body weight
Practically non-toxic.

Bioaccumulation

Bluegill sunfish (*Lepomis macrochirus*):

Whole fish: BCF: < 1
No significant bioaccumulation is expected.

Dissipation

Soil, field:

Half life: 2 - 174 days
Koc: 884 - 60,000 L/kg
Adsorbs strongly to soil.

Water, aerobic:

Half life: < 7 days

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

13.1.1. Product

Excess product may be disposed of by agricultural use according to label instructions. Keep out of drains, sewers, ditches and water ways. Recycle if appropriate facilities/equipment available. Burn in proper incinerator. Follow all local/regional/national/international regulations.

13.1.2. Container

See the individual container label for disposal information. Emptied containers retain vapour and product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed. Empty packaging completely. Triple or pressure rinse empty containers. Do NOT contaminate water when disposing of rinse waters. Store for collection by approved waste disposal service. Ensure packaging cannot be reused. Do NOT re-use containers. Recycle if appropriate facilities/equipment available. Follow all local/regional/national/international regulations.

Use handling recommendations in Section 7 and personal protection recommendations in Section 8.

14. TRANSPORT INFORMATION

The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

14.1. US Dept. of Transportation (DOT) Hazardous Materials Regulations (49 CFR Parts 105-180)

Proper Shipping Name (Technical Name if required):	Not regulated for domestic ground transportation. ()
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14.2. IMDG Code

Proper Shipping Name (Technical Name if required):	Not regulated for transport under IMO Regulations ()
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14.3. IATA/ICAO

Proper Shipping Name (Technical Name if required):	Not regulated for transport under IATA/ICAO Regulations ()
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15. REGULATORY INFORMATION

15.1. Environmental Protection Agency

15.1.1. TSCA Inventory

All components are on the US EPA's TSCA Inventory

15.1.2. SARA Title III Rules

Section 311/312 Hazard Categories: Immediate
Section 302 Extremely Hazardous Substances: Not applicable.
Section 313 Toxic Chemical(s): Not applicable.

15.1.3. CERCLA Reportable quantity

Not applicable.

15.1.4. Federal Insecticide, Fungicide, Rodenticide Act (FIFRA)

This chemical is a pesticide product regulated by the United States 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 (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION!
CAUSES EYE IRRITATION

Acute oral toxicity: FIFRA category IV.
Acute dermal toxicity: FIFRA category IV.
Acute inhalation toxicity: FIFRA category IV.
Skin irritation: FIFRA category IV.
Eye irritation: FIFRA category III.

16. OTHER INFORMATION

The information given here is not necessarily exhaustive but is representative of relevant, reliable data. Follow all local/regional/national/international regulations. Please consult supplier if further information is needed. In this document the British spelling was applied.
| Significant changes versus previous edition.

	Health	Flammability	Instability	Additional Markings
NFPA	1	1	1	
0 = Minimal hazard, 1 = Slight hazard, 2 = Moderate hazard, 3 = Severe hazard, 4 = Extreme hazard				

Full denomination of most frequently used acronyms: BCF (Bioconcentration Factor), BOD (Biochemical Oxygen Demand), COD (Chemical Oxygen Demand), EC50 (50% effect concentration), ED50 (50% effect dose), I.M. (intramuscular), I.P. (intraperitoneal), I.V. (intravenous), Koc (Soil adsorption coefficient), LC50 (50% lethality concentration), LD50 (50% lethality dose), LDLo (Lower limit of lethal dosage), LEL (Lower Explosion Limit), LOAEC (Lowest Observed Adverse Effect Concentration), LOAEL (Lowest Observed Adverse Effect Level), LOEC (Lowest Observed Effect Concentration), LOEL (Lowest Observed Effect Level), MEL (Maximum Exposure limit), MTD (Maximum Tolerated Dose), NOAEC (No Observed Adverse Effect Concentration), NOAEL (No Observed Adverse Effect Level), NOEC (No Observed Effect Concentration), NOEL (No Observed Effect Level), OEL (Occupational Exposure Limit), PEL (Permissible Exposure Limit), PII (Primary Irritation Index), Pow (Partition coefficient n-octanol/water), S.C. (subcutaneous), STEL (Short-Term Exposure Limit), STOT SE (Specific Target Organ Toxicity, Single Exposure), STOT RE (Specific Target Organ Toxicity, Repeated Exposure), TLV-C (Threshold Limit Value-Ceiling), TLV-TWA (Threshold Limit Value - Time Weighted Average), UEL (Upper Explosion Limit)

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of federal law to use a pesticide product in any manner not prescribed on the EPA-approved label.

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, MONSANTO Company or any of its subsidiaries makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for the purposes prior to use. In no event will MONSANTO Company or any of its subsidiaries be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR TO THE PRODUCT TO WHICH INFORMATION REFERS.



A Nonionic Low Foam Wetter/Spreader Adjuvant

*ACTIVE INGREDIENTS:

Alkyl Aryl Polyoxyalkane ethers, alkanolamides, dimethyl siloxane, and Free Fatty Acids	90.0%
Components ineffective as adjuvant	10.0%
TOTAL	100.0%
Surfactant Content:	70.0%

*All ingredients are accepted for use under CFR 40, 180.

KEEP OUT OF REACH OF CHILDREN

WARNING

May be harmful if swallowed
May be harmful in contact with skin
May be harmful if inhaled
Causes serious eye irritation
Causes skin irritation



SN 031115

NET CONTENTS: □ 1 Gallon (3.785 Liters)
□ 2.5 Gallons (9.46 Liters)
□ 30 Gallons (113.55 Liters)
□ 55 Gallons (208.18 Liters)
□ 250 Gallons (946.25 Liters)

MANUFACTURED FOR
HELENA CHEMICAL COMPANY
225 SCHILLING BOULEVARD, SUITE 300
COLLIERSVILLE, TN 38017
901-761-0050

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING

BEFORE USING THIS PRODUCT, READ ALL PRECAUTIONS, DIRECTIONS FOR USE, CONDITIONS OF SALE, LIMITED WARRANTY, AND LIMITATIONS OF LIABILITY AND REMEDIES.

May be harmful if swallowed. May be harmful in contact with skin. May be harmful if inhaled. Causes serious eye irritation. Causes skin irritation. Keep product locked up and out of the reach of children. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or smoking tobacco. Remove and wash contaminated clothing before reuse. Do not take internally. Avoid contact with or inhalation of spray application mist if present. Do not apply this product in such a manner as to directly expose workers or other persons. If product is being mixed with pesticides and/or spray adjuvants, follow all precautionary statements on the accompanying product(s) labeling. Not for human or animal consumption.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

- Long sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber or viton
- Shoes plus socks
- Protective eyewear

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

FIRST AID

IF IN EYES:	• Rinse cautiously with water for several minutes. • Remove contact lenses, if present and easy to do. Continue rinsing. • Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	• Call a POISON CENTER or doctor immediately • Rinse mouth. Do NOT induce vomiting • Do not give anything by mouth to an unconscious person. • Immediately call a POISON CENTER or doctor
IF INHALED:	• Move person to fresh air and keep at rest in a position comfortable for breathing if they feel unwell. • If not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if

Disclaimer: Always refer to the label on the product before using Helena or any other product.

	• possible. • Call a POISON CENTER or doctor for treatment advice.
IF ON SKIN OR HAIR:	• Take off immediately all contaminated clothing. Rinse skin with water or shower. • Get medical attention if irritation develops or persists. • Wash contaminated clothing before reuse.
HOT LINE NUMBER	Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.

STORAGE AND DISPOSAL

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

STORAGE: Store in original container only. Keep container tightly closed. Do not allow water to be introduced into the contents of this container. Do not store near heat or open flame. Do not store with oxidizing agents or ammonium nitrate.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Do not contaminate water sources by runoff from cleaning of equipment, disposal of cleaning equipment wash waters, or spray waste.

CONTAINER DISPOSAL: Do not reuse empty container. Triple rinse (or equivalent) during mixing and loading and add rinse water to spray tank. Recycling decontaminated containers is the best option of container disposal. The Agricultural Container Recycling Council (ACRC) operates the national recycling program. To contact your state and local ACRC recycler visit the ACRC web page at www.acrcycle.org. Decontaminated containers may also be disposed of in a sanitary landfill.

For help in chemical emergencies involving spill, leak, fire or exposure, call toll free 1-800-424-9300.

GENERAL INFORMATION

INDUCE® is a blend of nonionic surfactants, deposition agents, humectants, and defoamers. INDUCE® incorporates the properties of a wetter/spreader surfactant when used in spray mixtures. INDUCE® is designed to quickly wet and spread a more uniform spray deposit over leaf and stem surfaces and improve spray mix deposition. INDUCE® can positively affect pesticide spray application and pesticide efficacy. INDUCE® is recommended for use with those pesticides whose label recommends a non-ionic wetter/spreader-type adjuvant.

DIRECTIONS FOR USE

FOR USE WITH PRODUCTS REGISTERED FOR: AGRICULTURAL, AQUATIC, FORESTRY, INDUSTRIAL, MUNICIPAL, NON-CROPLAND, ORNAMENTAL, RIGHTS-OF-WAY, TURF AND OTHER USES.

The addition of an adjuvant to some pesticides or pesticide tank mix combinations may cause phytotoxicity to the foliage and/or fruit of susceptible crops. Prior to the addition of INDUCE® to spray tank mixes, the user or application advisor must have experience with the combination or must have conducted a phytotoxicity trial or must take the recommendations from the labels of the products to be tank mixed. INDUCE® may be applied by Ground, CDA, Aerial, or Aquatic spray equipment. For most applications, use enough INDUCE® to allow for uniform wetting and deposition of the spray onto leaf surfaces without undue runoff.

Ground, Aerial, CDA: Use 1-4 pints per 100 gallons of spray or 0.125-0.50% by volume.

Aquatic: Use 1-4 pints per 100 gallons of spray or 0.125-0.50% by volume.

*Note: The above use recommendations are considered to be adequate for most uses. Some pesticides however, may require higher or lower rates for optimum effect. Follow the pesticide(s) label(s) directions when this occurs.

For improved water penetration of hard-to-wet soils and the uniform distribution of applied moisture:

Lawns and Turf: Use INDUCE® at .50% v/v concentration.

Greens and Tees: Use INDUCE® at .125- .25% v/v concentration.

Deep Feeding Trees: Use INDUCE® at .25-.50% v/v concentration.

Application of INDUCE® through irrigation systems are possible provided that recommended use rates and dilutions are maintained and local, state, and federal guidelines are followed.

MIXING

Prior to any pesticide application all spray mixing and application equipment must be cleaned. Carefully observe all cleaning directions of the pesticide(s) label(s). Fill spray tank one-half full with water and begin agitation. Add pesticides as directed by labeling or in the following sequence:

1. Dry flowables or water dispersible granules.
2. Wettable powders
3. Flowables
4. Solutions
5. Emulsifiable concentrates

and continue filling. Add INDUCE® last and continue agitation.

**CONDITIONS OF SALE-LIMITED WARRANTY AND
LIMITATIONS OF LIABILITY AND REMEDIES**

Read the Conditions of Sale-Warranty and Limitations of Liability and Remedies before using this product. If the terms are not acceptable, return the product, unopened, and the full purchase price will be refunded.

The directions on this label are believed to be reliable and must be followed carefully. Insufficient control of pests and/or injury to the crop to which the product is applied may result from the occurrence of extraordinary or unusual weather conditions or the failure to follow the label directions or good application practices, all of which are beyond the control of Helena Chemical Company (the "Company") or seller. In addition, failure to follow label directions may cause injury to crops, animals, man or the environment. The Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purpose referred to in the directions for use subject to the factors noted above which are beyond the control of the Company. The Company makes no other warranties or representations of any kind, express or implied, concerning the product, including no implied warranty of merchantability or fitness for any particular purpose, and no such warranty shall be implied by law.

The exclusive remedy against the Company for any cause of action relating to the handling or use of this product shall be limited to, at Helena Chemical Company's election, one of the following:

1. Refund of the purchase price paid by buyer or user for product bought, or
2. Replacement of the product used

To the extent allowed by law, the Company shall not be liable and any and all claims against the Company are waived for special, indirect, incidental, or consequential damages or expense of any nature, including, but not limited to, loss of profits or income. The Company and the seller offer this product and the buyer and user accept it, subject to the foregoing conditions of sale and limitation of warranty, liability and remedies.

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INDUCE® is a registered trademark of Helena Holding Company.

Disclaimer: Always refer to the label on the product before using Helena or any other product.



Safety Data Sheet

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1. Identification

Product Name : INDUCE
Synonyms : None
Product Use : Nonionic Low Foam Wetter/Spreader Adjuvant
Manufacturer/Supplier : Helena Chemical Company
Address : 225 Schilling Blvd. Collierville, TN 38017
General Information : 901-761-0050
Transportation Emergency Number : CHEMTREC:800-424-9300

2. Hazard Identification



Signal Word : Warning
Skin Irritation : Moderately irritating
Eye Irritation : Severely irritating in non-washed eye (35.8); moderately irritating in washed eye (16.3); Injury was reversible
Acute Toxicity Oral : LD50 >4,000 mg/kg (rat)
Acute Toxicity Dermal : LD50 >2,000 mg/kg (rat)
Hazard Categories : Oral/Dermal/Inhalation Toxicity - 5/5/5; Eye Irritation - 2A; Skin Irritation - 2
Hazard Statement : May be harmful if swallowed
May be harmful in contact with skin
Causes serious eye irritation
Causes skin irritation
May be harmful if inhaled

3. Composition / Information on Ingredients

Component	CAS Number	Weight %
Alkyl Aryl Polyoxylkane ethers, alkanolamides, dimethyl siloxane, and free fatty acids	Proprietary	90.00
Components ineffective as adjuvant	Nonhazardous	10.00

4. First Aid Measures

Eye : Immediately flush eyes with water for at least 15 minutes. See a physician.
Skin : Remove contaminated clothing and wash skin with soap and water. Call a physician if irritation persists.
Inhalation : Move victim to fresh air. Give artificial respiration if needed. See a physician.
Ingestion : Give a large amount of water to drink, induce vomiting and immediately call a physician. Do not induce vomiting or give anything by mouth to an unconscious person.
Indication of Immediate Medical Attention and Special Treatment Needed : If contact is made with the spray solution containing pesticides, refer to the "Statement of Practical Treatment/First Aid" on the pesticide label(s). Otherwise, treat symptomatically.

5. Fire Fighting Measures

Extinguishing Media : Use dry chemical, water spray, water fog, carbon dioxide, foam, or sand/earth



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Specific Hazards Arising from the Chemical

Special Fire Fight Proc

- Water spray be ineffective. Cool fire-exposed containers with water. Fog nozzles are preferable. Closed containers may rupture or explode when exposed to extreme heat.
- Wear self-contained breathing apparatus and full protective clothing

6. Accidental Release Measures

Personal Precautions

Protective Equipment

Emergency Procedures Methods and Materials for Containment and Cleanup

- Keep unprotected and unnecessary personnel out of spill area
- Splashproof goggles or face shield, chemical-resistant gloves, impervious apron and footwear. Eyewash should be available in work area. Use NIOSH-approved respirator with organic vapor cartridge if PEL exceeded.
- Prevent spreading of spilled material into any waterways, drains or sewers.
- Absorb with an inert material such as sand, soil or vermiculite. Sweep up and dispose of in accordance with Federal, State and Local regulations

7. Handling and Storage

Precautions for Safe Handling

Conditions for Safe Storage

- Keep out of reach of children. Keep container tightly closed. Do not contaminate water sources by runoff from cleaning of equipment, disposal of equipment wash waters or spray waste.
- Do not store with food, feed or other material to be used or consumed by humans or animals. Store in original container only. Do not allow water to be introduced into the contents of this container.

8. Exposure Controls / Personal Protection

TLV/PEL

Appropriate Engineering Controls Personal Protective Equipment

- PEL 100 mg/m3.
- Mechanical exhaust system
- Splashproof goggles or face shield, chemical-resistant gloves, impervious apron and footwear. Eyewash should be available in work area. Use NIOSH-approved respirator with organic vapor cartridge if PEL exceeded.

9. Physical and Chemical Properties

Odor/Appearance	Clear-slightly hazy colorless to yellow liquid
Flash Point, °F	>200 Degrees F
Boiling Point, °F	>250 Degrees F
Melting Point(Freezing point), °C	Not applicable
Vapor Pressure, mm Hg @ 20 °C	Not established
Vapor Density	2.1
Solubility in Water	Dispersible
Molecular Formula	Not applicable, formulated mixture.
Density, g/mL @ 25 °C	0.956-1.033
Evaporation Rate(Butyl Acetate = 1)	Not applicable
Octanol/Water Partition Coefficient	No information found
pH	4-5.0
Flammable Limits (approximate volume % in air)	No information found
Auto-ignition Temperature	>750 Degrees F
Decomposition temperature	No information found



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10. Stability and Reactivity

Reactivity	No information found
Chemical Stability	Stable
Hazardous Decomposition Products	Carbon monoxide and carbon dioxide under fire conditions.
Hazardous Polymerization	Will not occur
Conditions to Avoid	Excessive heat and open flames.
Incompatible Materials	Do not mix with strong oxidizers such as hydrogen peroxide, bromine and chromic acid

11. Toxicological Information

Acute Toxicity (Oral LD50)	>4,000 mg/kg (rat)
Acute Toxicity (Dermal LD50)	>2,000 mg/kg (rat)
Acute Toxicity Inhalation LC50	2.02 mg/L (vapor limit)
Likely Routes of Exposure	Eyes, skin.
Skin Irritation	Moderately irritating
Eye Irritation	Severely irritating in non-washed eyes (35.8), moderately irritating in washed eyes (16.3). Injury was reversible.
Skin Sensitization	Not listed as a sensitizer
Carcinogenic	Not listed by IARC, NTP or OSHA.
Chronic Effects	None currently known.
Other Hazards	May contain components which, in laboratory tests, have been toxic to the fetus only at doses toxic to the mother.

12. Ecological Information

Ecotoxicity	No information found
Persistence and Degradability	No information found
Bioaccumulative Potential	No information found
Mobility in Soil	No information found
Other Adverse Effects	Contains Alcohol C-12-C-16 Poly (1-6) Ethoxylate - a marine pollutant.

13. Disposal Considerations

Waste Disposal Method	This material must be disposed of according to Federal, State or Local procedures under the Resource Conservation and Recovery Act
-----------------------	--

14. Transport Information

UN Proper Shipping Name	Not regulated by DOT in non-bulk packages. Regulated in bulk or if shipped by air (IATA) or vessel (IMDG) as Environmentally Hazardous Substance, Liquid, n.o.s., (Alcohol C12-C16 Poly (1-6) Ethoxylate)
Transport Hazard Class	Class 9 (bulk/IATA/IMDG)
UN Identification Number	3082(bulk/IATA/IMDG)
Packaging Group	PG III (bulk/IATA/IMDG)
Environmental Hazards	Marine Pollutant
Transport in Bulk	Marine Pollutant
Special Precautions for Transportation	No information found



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Freight Classification : Adhesives, Adjuvants, Spreaders or Stickers, N.O.I (NMFC Item 42652, Class 60)

15. Regulatory Information

**National Fire Protection
Association Rating**

Health: 1 Fire: 1 Reactivity: 0
Rating Level: (4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-Minimum)

**S.A.R.A Title III Hazard
Classification (Yes/No)**

Immediate(Acute) Health: Y
Delayed (Chronic) Health: N
Sudden Release of N
Pressure:
Fire: N
Reactive: N

16. Other Information

Data of Preparation/Revision : 04-August-2015

SPECIMEN

Pendimethalin**Group****3****Herbicide**

Pendulum® AquaCap

Herbicide

For use as a preemergence weed control herbicide in turfgrass, landscape or grounds maintenance, noncropland areas, and ornamental production

Active Ingredient:

pendimethalin: N-(1-ethylpropyl)-3,4-dimethyl-2,6-dinitrobenzenamine 38.7%

Other Ingredients: 61.3%

Total: 100.0%

1 gallon contains 3.8 lbs of microencapsulated pendimethalin in an aqueous carrier.

EPA Reg. No. 241-416

EPA Est. No.

KEEP OUT OF REACH OF CHILDREN

CAUTION/PRECAUTION

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

See inside for complete **First Aid, Precautionary Statements, Directions For Use, Conditions of Sale and Warranty**, and state-specific crop and/or use site restrictions.

**In case of an emergency endangering life or property involving this product,
call day or night 1-800-832-HELP (4357).**

Net Contents:

BASF Corporation
26 Davis Drive
Research Triangle Park, NC 27709

 **BASF**
We create chemistry

FIRST AID	
If in eyes	• Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after first 5 minutes; then continue rinsing eyes. • Call a poison control center or doctor for treatment advice.
HOTLINE	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. In case of an emergency endangering life or property involving this product, call day or night, 1-800-832-HELP (4357).	

Precautionary Statements

Hazards to Humans and Domestic Animals

CAUTION. Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves
- Shoes plus socks

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

Engineering Controls

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

USER SAFETY RECOMMENDATIONS

Users should:

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

Environmental Hazards

This product is toxic to fish. **DO NOT** apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent aquatic sites. **DO NOT** contaminate water when disposing of equipment washwaters or rinsate.

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

Directions For Use

It is a violation of federal law to use this product in a manner inconsistent with its labeling. This label must be in the possession of the user at time of herbicide application.

DO NOT apply this product through any type of irrigation system.

BASF Corporation does not recommend or authorize the use of this product in manufacturing, processing or preparing custom blends with other products for application to turf or ornamentals.

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 requirements specific to your state or tribe, consult the state or tribal agency responsible for pesticide regulation.

DO NOT apply **Pendulum® AquaCap herbicide** in greenhouses, shadehouses, or other enclosed structures.

Not for use for commercial seed production.

AGRICULTURAL USE REQUIREMENTS

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

DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of **24 hours**.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves
- Shoes plus socks

NONAGRICULTURAL 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.

DO NOT enter treated areas without protective clothing until sprays have dried.

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL OR CROP INJURY.

STORAGE AND DISPOSAL

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

Pesticide Storage

DO NOT store below 15° F. Extended storage at temperatures below 15° F can result in the formation of crystals on the bottom of container. If crystallization does occur, store the container on its side at room temperature (70° F) and rock occasionally until crystals dissolve.

Pesticide Disposal

Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Handling

Nonrefillable Container. DO NOT reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Triple rinse containers small enough to shake (capacity ≤ 5 gallons) as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Triple rinse containers too large to shake (capacity > 5 gallons) as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Repeat this procedure two more times.

(continued)

STORAGE AND DISPOSAL *(continued)*

Container Handling *(continued)*

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. Hold container upside down over application equipment or mix tank, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Refillable Container. Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose. Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

Triple rinse as follows: To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

When this container is empty, replace the cap and seal all openings that have been opened during use; return the container to the point of purchase or to a designated location. This container must only be refilled with a pesticide product. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn-out threads and closure devices. Check for leaks after refilling and before transport. **DO NOT** transport if this container is damaged or leaking. If the container is damaged, or leaking, or obsolete and not returned to the point of purchase or to a designated location, triple rinse emptied container and offer for recycling, if available, or dispose of container in compliance with state and local regulations.

Product Information

Pendulum® AquaCap herbicide controls most annual grasses and certain broadleaf weeds as they germinate. When susceptible weeds germinate in the treated area, they contact the herbicide and both shoot and root growth stops. Translocation of the herbicide within the plant is limited. Affected weeds die shortly after growth is stopped, usually before emergence from the soil.

Mode of Action

Pendimethalin, the active ingredient in **Pendulum AquaCap**, is a **Group 3 (WSSA)/Group K₁ (HRAC)** herbicide belonging to the dinitroaniline chemistry class.

Pendulum AquaCap is a meristematic inhibitor that interferes with meristematic plant cell division or mitosis inhibiting germinating seedling growth.

Herbicide Resistance Management

While weed resistance to **Group 3** herbicides is infrequent, populations of resistant biotypes are known to exist. Weeds resistant to **Group 3** herbicides should be managed using herbicide(s) from a different group (mode or site of action) that are effective against the target weeds. Resistance management should be part of a diversified weed control strategy that integrates chemical, cultural, and mechanical (tillage) control tactics. Consult your local BASF representative, state cooperative extension service, professional consultants, or other qualified authority to determine appropriate actions if you suspect resistant weeds.

Chemical Control

- Start clean with mechanical control measure or an effective burndown herbicide program.
- **DO NOT** rely on a single herbicide site of action for weed control.
- Follow labeled application rate and weed growth stage specifications.
- Avoid application of herbicides with the same site of action more than twice a season.
- Use tank mixes and sequential applications with other herbicides possessing different sites of action that are also effective on the target weeds.

Scouting and Containment

- Scout treated areas after herbicide application to identify areas where weed control was ineffective.
- Control weed escapes with herbicides possessing a different site of action or use a mechanical control measure. Weed escapes should not be allowed to reproduce by seed or to proliferate vegetatively.
- Contact your **Pendulum AquaCap** supplier and/or your local BASF representative to report weed escapes.
- Clean equipment before moving to a different treatment area to avoid spread of resistant weeds.

Weeds Controlled

Pendulum AquaCap will not control established weeds. If weeds germinate before herbicide activation, shallow cultivate to destroy existing weeds or, where practical, remove by hand. When cultivating for any reason, it should be shallow. Use **Pendulum AquaCap** with herbicides registered for postemergence application (i.e. **Roundup® herbicide** or **Finale® herbicide**) for the control of established weeds. **DO NOT** apply sprays containing **Roundup** or **Finale** over the top of desirable plants. A **Pendulum AquaCap** treatment may be followed by any registered herbicide to control weeds not listed on the **Pendulum AquaCap** label.

The efficacy of **Pendulum AquaCap** will be improved if the application is followed by 1/2 inch of rainfall or its equivalent in sprinkler irrigation. Erratic weed control may result if **Pendulum AquaCap** is not activated by rainfall or irrigation within 30 days.

The following grass and broadleaf weeds are controlled by preemergence treatments of **Pendulum AquaCap** at the specified rates.

Table 1. Weeds Controlled

Common Name	Scientific Name
Grasses	
Barnyardgrass	<i>Echinochloa crus-galli</i>
Bluegrass, annual	<i>Poa annua</i>
Crabgrass	<i>Digitaria</i> spp.
Crowfootgrass	<i>Dactyloctenium aegyptium</i>
Foxtail, giant	<i>Setaria faberi</i>
Foxtail, green	<i>Setaria viridis</i>
Foxtail, yellow	<i>Setaria glauca</i>
Goosegrass	<i>Eleusine indica</i>
Itchgrass	<i>Rottboellia exaltata</i>
Johnsongrass (from seed)	<i>Sorghum halepense</i>
Junglerice	<i>Echinochloa colona</i>
Lovegrass (from seed)	<i>Eragrostis</i> spp.
Panicum, browntop	<i>Panicum fasciculatum</i>
Panicum, fall	<i>Panicum dichotomiflorum</i>
Panicum, Texas	<i>Panicum texanum</i>
Sandbur, field	<i>Cenchrus incertus</i>
Signalgrass	<i>Brachiaria platyphylla</i>
Sprangletop, Mexican	<i>Leptochloa uninervia</i>
Sprangletop, red	<i>Leptochloa filiformis</i>
Witchgrass	<i>Panicum capillare</i>
Woolly cupgrass	<i>Eriochloa villosa</i>
Broadleaf Weeds	
Burweed, lawn	<i>Soliva pterosperma</i>
Carpetweed	<i>Mollugo verticillata</i>
Chickweed, common	<i>Stellaria media</i>
Chickweed, mouseear	<i>Cerastium vulgatum</i>
Clover, hop	<i>Trifolium procumbens</i>
Cudweed	<i>Gnaphalium</i> spp.
Evening primrose	<i>Oenothera biennis</i>
Fiddleneck	<i>Amsinckia intermedia</i>
Filaree	<i>Erodium</i> spp.
Henbit	<i>Lamium amplexicaule</i>
Knotweed, prostrate	<i>Polygonum aviculare</i>
Kochia	<i>Kochia scoparia</i>
Lambsquarters	<i>Chenopodium album</i>
Pigweed	<i>Amaranthus</i> spp.
Puncturevine	<i>Tribulus terrestris</i>
Purslane	<i>Portulaca oleracea</i>
Pusley, Florida	<i>Richardia scabra</i>

(continued)

Table 1. Weeds Controlled (continued)

Common Name	Scientific Name
Broadleaf Weeds (continued)	
Rocket, London	<i>Sisymbrium irio</i>
Shepherdspurse	<i>Capsella bursa-pastoris</i>
Smartweed, Pennsylvania	<i>Polygonum pensylvanicum</i>
Speedwell, corn	<i>Veronica arvensis</i>
Spurge, annual	<i>Euphorbia</i> spp.
Spurge, prostrate	<i>Chamaesyce humistrata</i>
Woodsorrel, yellow	<i>Oxalis stricta</i>
Velvetleaf (Buttonweed)	<i>Abutilon theophrasti</i>

Application Use Sites

Use **Pendulum® AquaCap herbicide** for preemergence control of grass and certain broadleaf weed species as they germinate **in any turfgrass site** (golf courses, lawns, sod farms and other turf areas) and **landscape ornamental maintenance areas**. Examples of such sites include, but are not limited to: grounds or lawns around residential and commercial establishments, multifamily dwellings, military and other institutions, parks, airports, roadsides, schools, picnic grounds, athletic fields, houses of worship, cemeteries, golf courses, prairie grass areas, and sod farms.

Pendulum AquaCap can be applied for general grounds maintenance in areas such as parking lots, driveways and roadsides, alleyways, bike and jogging paths, vacant lots, buildings, stone gardens and gravel yards, markers and fence lines, and mulch beds. It may be used under asphalt or concrete treatments as part of a site preparation program.

Use **Pendulum AquaCap** for preemergence control of most annual grasses and certain broadleaf weeds as they germinate **in any noncropland area** such as railroad, utility, highway, and pipeline rights-of-way; highway guard-rails, delineators, and sign posts; bridge abutments and approaches; utility substations; petroleum tank farms; pumping installations; storage areas; fence rows; wind-breaks and shelterbelts; paved or gravel surfaces; and established wildflower plantings where weed control is desired.

Pendulum AquaCap can also be used **in bulb plantings, nonbearing fruit and nut tree nurseries, conifer and hardwood seedling nurseries, and tree plantations for site preparation and maintenance**.

Applications can be made, but are not limited to, plant species listed on this label such as trees, shrubs, ground-covers, perennials, bulbs, ornamental grasses, and bedding plants.

Pendulum AquaCap can be used **in and around field, liner, and container ornamental production**.

Application Instructions

Pendulum® AquaCap herbicide will not control established weeds. Therefore, areas to be treated should be free of established weeds at the time of treatment, or **Pendulum AquaCap** may be used with herbicides registered for postemergence use in managed turf sites, landscape ornamentals, and in other noncropland areas. Consult the labels of those herbicides for suggested treatments, rates, and precautions or restrictions for use in these areas. The efficacy of **Pendulum AquaCap** will improve if the application is followed by 1/2 inch of rainfall or its equivalent in sprinkler irrigation. If **Pendulum AquaCap** is not activated by rainfall or irrigation within 30 days, erratic weed control may result.

Applied according to label directions and under normal growing conditions, **Pendulum AquaCap** or **Pendulum AquaCap** tank mix combinations will not cause crop injury. Overapplication can result in crop stand loss, crop injury, or soil residues. Uneven application can decrease weed control or cause crop injury.

Seedling diseases, cold weather, excessive moisture, high soil pH, high soil salt concentration, or drought can weaken seedlings and plants and increase the possibility of plant damage from **Pendulum AquaCap**.

Mixing Instructions

Pendulum AquaCap may be applied in a tank mix or a sequential application with other herbicides registered for use in a given crop. Refer to the companion label for weeds controlled in addition to **Pendulum AquaCap** alone.

When using tank mixtures or sequential applications with **Pendulum AquaCap**, always read the companion product label(s) to determine the specific use rates by soil types, weed species, and weed or crop growth stage. In addition, follow all precautions and restrictions including state and local use restrictions that may apply to specific products. Always follow the most restrictive label.

Fill tank 1/2 to 3/4 full with clean water or liquid fertilizer and agitate. Before mixing **Pendulum AquaCap** or **Pendulum AquaCap** tank mixtures in liquid fertilizer, refer to appropriate label sections for recommended uses in liquid fertilizer, application instructions, and compatibility determinations.

Pendulum AquaCap Alone

When using **Pendulum AquaCap** alone, add **Pendulum AquaCap** to the partially filled tank while agitating; then fill the remainder of the tank with water or liquid fertilizer.

Pendulum AquaCap Tank Mixes

Add the tank mixture ingredients in the following order:

1. **Wettable Powder (WP) formulations** - Make a slurry of the WP in water (1:2 ratio). Add the slurry slowly into the partially filled tank while agitating.

2. **Dry Flowable/Water Dispersible Granule (DF/WDG) formulations** - Add the granules to the partially filled tank while agitating. Make a slurry of the granules in water before adding to liquid fertilizer.
3. **Flowable (F) formulations** - Add the F formulation to the partially filled tank while agitating.
4. Add **Pendulum AquaCap** to the partially filled tank while agitating.
5. **Water-soluble Concentrate (WSC) formulations** - Add the WSC formulation to the partially filled tank while agitating.
6. **Emulsifiable Concentrate (EC) formulations** - Add the EC formulation to the partially filled tank while agitating.

Fill the remainder of the tank with water or liquid fertilizer while agitating.

Maintain continuous agitation while adding herbicides and until spraying is completed. If the spray mixture is allowed to settle for any period of time, thorough agitation is essential to resuspend the mixture before spraying is resumed.

Backpack Sprayer

Begin with a clean spray tank. Fill the spray tank 1/2 full with clean water and add the required amount of **Pendulum AquaCap** to the sprayer. Cap sprayer and agitate to ensure mixing. Uncap sprayer and finish filling tank to desired level. Cap sprayer and agitate once again. During application it is desirable to agitate the mixture on occasion to ensure mixing. If the spray mixture is allowed to settle for any period of time, thorough agitation is essential before spraying is resumed.

Liquid Fertilizers

Before mixing, always test small quantities with a simple jar test. Add the required amount of **Pendulum AquaCap** to a half-filled spray tank while agitating; then add the fertilizer product. Complete filling spray tank to desired level.

Spraying Instructions

Avoid unintentional contact of spray solution with drive-ways, stone, wood, or other porous surfaces. Rinse immediately with water to avoid staining. Avoid mechanically scrubbing until surface area is thoroughly rinsed. Treated turfgrass should be dry before entering to avoid staining onto nontreated surfaces.

Ground Application (spray boom)

Uniformly apply with properly calibrated ground equipment in sufficient water per acre to uniformly treat the area with a spray pressure of 25 to 50 psi. Suggested spray volumes are 20 to 200 gpa for professional turfgrass, landscape and ornamental applications, and 10 to 200 gpa for all other noncrop applications such as roadsides, utility rights-of-way, or soft-residual bareground applications. Maintain continuous agitation during spraying with good mechanical or bypass agitation. Avoid overlaps that will increase rates above those specified.

Ground Application (hand-held equipment)

Use **Table 2** or **Table 3** to determine the amount of **Pendulum® AquaCap herbicide** to apply per 1,000 square feet of treated area. The amount of water used for the application is not critical but should be sufficient for thorough coverage without runoff. Calibration of backpack or other hand-held equipment will vary with each operator. Determine the amount of water needed to treat 1,000 square feet before mixing the spray solution. Follow information in **Mixing Instructions** section of this label.

Aerial Application

Uniformly apply in 5 or more gallons of water per acre.

Spray Drift Management

Ground Application (spray boom)

- Applicators must only apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or plant canopy.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- **DO NOT** apply when wind speeds exceed 15 mph at the application site.
- **DO NOT** apply during temperature inversions.

Ground Application (hand-held)

- Take precautions to minimize spray drift.

Spray Drift Management

Aerial Application

- **DO NOT** release spray at a height greater than 10 feet above the ground or plant canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- **DO NOT** apply when wind speeds exceed 15 mph at the application site. If the wind speed is greater than 10 mph, the boom length must not exceed 65% of the wingspan for fixed wing aircraft or 75% of the rotor diameter for helicopters. Otherwise, the boom length must not exceed 75% of the wingspan for fixed wing aircraft or 90% of the rotor diameter for helicopters.
- Applicators must use 1/2 swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- **DO NOT** apply during temperature inversions.

Spray Drift Advisories

The applicator is responsible for avoiding off-site spray drift. Be aware of nearby non-target sites and environmental conditions.

Importance of Droplet Size

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray

drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size - Ground Boom

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

Controlling Droplet Size - Aircraft

- **Adjust Nozzles** - Follow nozzle manufacturer's recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

Boom Height - Ground Boom

For ground equipment, the boom should remain level with the plants and have minimal bounce.

Release Height - Aircraft

Higher release heights increase the potential for spray drift.

Shielded Sprayers

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

Temperature and Humidity

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

Temperature Inversion

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

Wind

Drift potential generally increases with wind speed. **AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.**

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

Turfgrass

Use **Pendulum® AquaCap herbicide** for preemergence control of grasses and certain broadleaf weed species as they germinate in any turfgrass site (golf courses, lawns, sod farms and other turf areas) and landscape ornamental maintenance areas. Examples of such sites include, but are not limited to: grounds or lawns around residential and commercial establishments, multifamily dwellings, military and other institutions, parks, airports, roadsides, schools, picnic grounds, athletic fields, houses of worship, cemeteries, golf courses, prairie grass areas, and sod farms.

The efficacy of **Pendulum AquaCap** will be improved if the application is followed by 1/2 inch of rainfall or its equivalent in sprinkler irrigation. If **Pendulum AquaCap** is not activated by rainfall or irrigation within 30 days, erratic weed control may result.

To prevent establishment of weeds along the edges of treated area, it may be necessary to overlap the spray 3 to 6 inches onto sidewalks or driveways, etc., to ensure effective application rates in these especially vulnerable sites. Where temporary discoloration of pavement is to be avoided, **DO NOT** rub or scrub surface. Rinse area immediately using a heavy spray of water to avoid staining. Treated turfgrass should be dry before entering to avoid staining onto nontreated surfaces.

Turfgrass Tank Mixes

Pendulum AquaCap can be mixed with postemergence herbicides to control emerged weeds in nonresidential turfgrass. For annual grass control, applications can be made with **Drive® 75 DF herbicide**, **Drive® XLR8 herbicide**, or MSMA to control emerged weeds.

Broadleaf weeds can be controlled using **Trimec® herbicide**, **Three-Way™ herbicide**, 2-4,D and other similar products.

Before tank mixing, use a simple jar test to ensure compatibility of herbicides.

Refer to manufacturer's labels for specific use directions, precautions, and limitations before tank mixing with **Pendulum AquaCap**. Follow those that are most restrictive.

Turfgrass Restrictions

- Use on well-established turfgrass with a dense and uniform stand. On turf that has been thinned or damaged due to winter injury, excessive moisture, etc., allow for turf recovery before application.
- On newly planted areas, application should not be made until the turfgrass has filled in and has been mowed at least four times. Applications made to overseeded warm-season turfgrass may cause thinning or injury of the overseeded species.
- **DO NOT** use on bentgrass or *Poa annua* greens and tees or injury may occur.

- Delay reseeding or winter overseeding treated turfgrass for at least three (3) months following the last **Pendulum AquaCap** application.
- Delay sprigging turfgrass for five (5) months after application.

Table 2. Pendulum® AquaCap herbicide Residential, Golf Course, Commercial, and Other Nonresidential Turfgrass Uses for Preemergence Weed Control¹

Cool Season Turfgrass	Weed	Product per 1,000 sq ft (fl ozs)	Product per acre (pts)	Comment	
Bluegrass, Kentucky Fescue, fine Fescue, tall Ryegrass, perennial	barnyardgrass crabgrass evening primrose fall panicum foxtail hop clover knotweed oxalis <i>Poa annua</i> prostrate spurge purslane	All Turf Uses:		Apply a repeat application of 2.2 to 3.1 pts/A (0.86 to 1.1 fl ozs/1,000 sq ft) after 5 to 8 weeks for extended control or where heavy weed infestations are expected.	
		1.1 to 1.6	3.1 to 4.2		
		Initial application before weed germination in spring			
	goosegrass	Residential and Sod Farm Turf Uses Only ² :		Apply a repeat application of 3.1 pts/A (1.1 fl ozs/1,000 sq ft) if the lower rate was used initially or for extended goosegrass control after 5 to 8 weeks.	
		1.1 to 1.6	3.1 to 4.2		
		Golf Course, Commercial and Other Nonresidential Turf Uses Only:			
		1.1 to 2.3	3.1 to 6.3		
		Initial application before weed germination in spring			
	chickweed corn speedwell cudweed henbit lawn burweed <i>Poa annua</i>	All Turf Uses:		Apply in late summer or early fall before weed germination. Apply a repeat application of 3.1 to 4.2 pts/A (1.1 to 1.6 fl ozs/1,000 sq ft) after 5 to 8 weeks for extended <i>Poa annua</i> control.	
		1.1 to 1.6	3.1 to 4.2		
	Bentgrass or established <i>Poa annua</i> ³ (1/2-inch high or taller)	barnyardgrass crabgrass evening primrose fall panicum foxtail hop clover knotweed oxalis <i>Poa annua</i> prostrate spurge purslane	All Turf Uses (Non-greens and Tees):		Apply a repeat application of 2.2 to 3.1 pts/A (0.86 to 1.1 fl ozs/1,000 sq ft) after 5 to 8 weeks for extended control or where heavy weed infestations are expected.
			1.1	3.1	
Initial application before weed germination in spring					
goosegrass		All Turf Uses (Non-greens and Tees):		Apply a repeat application of 3.1 pts/A (1.1 fl ozs/1,000 sq ft) for extended goosegrass control after 5 to 8 weeks.	
		1.1	3.1		
		Initial application before weed germination in spring			
chickweed corn speedwell cudweed henbit lawn burweed <i>Poa annua</i>		All Turf Uses (Non-greens and Tees):		Apply in late summer or early fall before weed germination.	
		1.1 to 1.6	3.1 to 4.2		

(continued)

Table 2. Pendulum® AquaCap herbicide Residential, Golf Course, Commercial, and Other Nonresidential Turfgrass Uses for Preemergence Weed Control¹ (continued)

Warm Season Turfgrass	Weed	Product per 1,000 sq ft (fl ozs)	Product per acre (pts)	Comment
Bahia grass Bermuda grass Buffalo grass Centipede grass Fescue, tall <i>Paspalum</i> , seashore St. Augustine grass Zoysiagrass	barnyard grass crab grass evening primrose fall panicum foxtail hop clover knotweed oxalis <i>Poa annua</i> prostrate spurge purslane	Residential and Sod Farm Turf Uses Only:		Apply a repeat application of 2.2 to 3.1 pts/A (0.86 to 1.1 fl ozs/1,000 sq ft) after 5 to 8 weeks if necessary.
		1.1 to 1.6	3.1 to 4.2	
		Golf Course, Commercial and Other Nonresidential Turf Uses Only:		
		1.1 to 2.3	3.1 to 6.3	
		Initial application before weed germination in spring		
	goose grass	All Turf Uses (Non-greens and Tees):		An additional application of 3.1 pts/A (1.1 fl ozs/1,000 sq ft) may be made for extended goose grass control 8 weeks after the second application.
		1.1	3.1	
		Apply before weed germination in spring. Make a second application at 3.1 pts/A (1.1 fl ozs/1,000 sq ft) 5 to 8 weeks later.		
	chickweed corn speedwell cudweed henbit lawn burweed <i>Poa annua</i>	All Turf Uses:		Apply in late summer or early fall before weed germination. Apply a repeat application of 3.1 to 4.2 pts/A (1.1 to 1.6 fl ozs/1,000 sq ft) after 5 to 8 weeks for extended <i>Poa annua</i> control.
		1.1 to 1.6	3.1 to 4.2	

¹ **DO NOT** exceed a maximum of 4.2 pints (2.1 quarts)/A or 1.6 fl ozs/1,000 sq ft product **per application** for use on residential and sod farm turfgrass. **DO NOT** exceed a maximum rate of 6.3 pints (3.1 quarts)/A or 2.3 fl ozs/1,000 sq ft product **per application** for use on golf course turfgrass, commercial, or other nonresidential turfgrass.

² Residential is defined as turf in any residential situation as well as home lawns, schools, parks, and playgrounds.

³ **DO NOT** use on bentgrass or *Poa annua* greens or tees.

Weeds Controlled

Pendulum AquaCap will not control established weeds. If weeds should germinate before activation of herbicide, shallow cultivate to destroy existing weeds or, where practical, remove by hand. When cultivating for any reason, it should be shallow. **Pendulum AquaCap** may be used with herbicides registered for postemergence application (i.e. **Roundup® herbicide** or **Finale® herbicide**) for control of established weeds. **DO NOT** apply sprays containing **Roundup** or **Finale** over the top of desirable plants. A **Pendulum AquaCap** treatment may be followed by any registered herbicide to control weeds not listed on the **Pendulum AquaCap** label.

Landscape and Grounds Maintenance

Pendulum AquaCap can be incorporated into landscape and grounds maintenance programs to provide extended preemergence control of most annual grasses and certain

broadleaf weeds. Areas to be treated, such as mulch beds, parking areas and roadsides, fencelines and borders, and around statuary or monuments, should be free of emerged weeds before application. To remove emerged weeds, either cultivate or tank mix **Pendulum AquaCap** with a postemergence product labeled for such use.

Not all ornamental species or cultivars of species can be tested for plant safety. Refer to the list of ornamental plant species found in this label (**Table 4. Tolerant Ornamental Species**). **Pendulum AquaCap** may be used on plant species not listed on this label; however, testing a small number plants at the specified rate and evaluating for suitability before a broad-use application is advised. Refer to **Table 3. Weed Control in All Nonturfgrass Sites** for application rates. Avoid unintentional contact of spray solution with stone, wood, or other porous surfaces because staining may occur. Rinse surfaces immediately using a heavy spray of water to avoid staining.

Table 3. Weed Control in All Nonturfgrass Sites*

For preemergence control of the weed species listed, apply **Pendulum® AquaCap herbicide** at the specified rates:

Length of Control (months)	Pendulum AquaCap (qts/A)	Required to Treat 1,000 sq ft (fl ozs)
Short term (2 to 4)	2.1	1.6
Long term (6 to 8)	4.2	3.2
* For all turfgrass weed control rates, refer to Table 2. Pendulum® AquaCap herbicide Residential, Golf Course, Commercial, and Other Nonresidential Turfgrass Uses for Preemergence Weed Control.		

For extended weed control, repeat applications of **Pendulum AquaCap** can be made.

Ornamental Plantings and Tree Plantations including Noncropland Areas

Use **Pendulum AquaCap** for grounds maintenance in noncropland areas, for preemergence control of the weed species listed in and around established tree plantations for site preparation, and for maintenance of conifer and hardwood seedling nurseries and pulpwood and fiber farms. **Pendulum AquaCap** may be used for hardwood and conifer regeneration on conservation reserve program land. **Pendulum AquaCap** can also be used in Christmas trees and nonbearing fruit and nutcrops and vineyards established, or bulb and wildflower field plantings, in and around established ornamentals planted in noncropland areas such as highway rights-of-way and utility substations. Refer to **Table 3. Weed Control in All Nonturfgrass Sites** for application rates.

Applications at Planting or to Established Trees

When applying at planting, it is important to achieve slit closure to prevent **Pendulum AquaCap** from directly contacting the tree roots or being washed into the root zone via the open slit, or root stunting may occur. Refer to **Landscape and Ornamental Plantings Instructions and Restrictions** chart before application.

For postemergence weed control, tank mix combinations of **Pendulum AquaCap** plus **Segment® herbicide**, **Roundup® herbicide**, **Finale® herbicide**, or other labeled herbicides are recommended. Refer to approved labeling for species recommendations. Determine rates for tank mix compounds from the product labels of **Pendulum AquaCap** and partner herbicides before use. Use caution to prevent combination sprays from direct contact with desirable foliage or injury may result. **Pendulum AquaCap** plus diuron or simazine

combinations will broaden weed control spectrum; however, use of combinations may restrict **Pendulum AquaCap** use in sensitive areas. Refer to manufacturer's labels for specific use directions, precautions, and limitations before application and follow those that are most restrictive.

Ornamental Bulbs

Pendulum AquaCap may be applied for control of susceptible annual weeds in ornamental bulbs listed in the **Perennials** section in **Table 4. Tolerant Ornamental Species** (crocus, daffodil [narcissus], gladiolus, lily, tulip, etc.). Apply **Pendulum AquaCap** before, during, or after bulb emergence. If weeds have already germinated, add a labeled postemergence herbicide to control emerged weeds.

Wildflowers

Pendulum AquaCap may be applied for control of susceptible annual weeds in plantings of wildflowers listed in the **Perennials** section in **Table 4. Tolerant Ornamental Species**. The perennial species noted¹ (black-eyed Susan, California poppy, coreopsis, oxeye daisy, etc.) have been evaluated for plant tolerance to applications of **Pendulum AquaCap** at 4.2 pints (2.1 quarts) per acre. **Pendulum AquaCap** may be applied to established perennial wildflowers before emergence of weeds or wildflowers. For wildflowers being established from seed, apply **Pendulum AquaCap** no sooner than 4 weeks after wildflowers have emerged, but before weed germination. If weeds have already germinated, add a labeled postemergence product to control emerged weeds. Refer to all label restrictions before application.

Due to the diversity of species and varieties that exist in areas where wildflowers are grown, the response to **Pendulum AquaCap** may vary greatly. Careful testing on desirable species is recommended to determine if area-wide applications can be made.

Nonbearing Fruit and Nutcrops and Vineyards

Pendulum AquaCap may be applied for preemergence control of most annual grasses and certain broadleaf weeds on the following nonbearing crops:

Almond	Grape	Pistachio
Apple	Nectarine	Plum
Apricot	Olive	Prune
Cherry	Peach	Walnut, English
Citrus	Pear	
Fig	Pecan	

Noncropland

Use **Pendulum AquaCap** for preemergence control of most annual grasses and certain broadleaf weeds as they germinate on noncropland areas such as railroad, utility, highway, and pipeline rights-of-way; highway guardrails, delineators, and sign posts; utility substations, petroleum tank farms, pumping installations, fence rows, storage areas, windbreaks and shelterbelts.

Industrial (Unimproved) Turf

Pendulum® AquaCap herbicide will provide pre-emergence control of the annual grasses and broadleaf weeds listed in **Table 1. Weeds Controlled** that might germinate in established grass in rights-of-way, roadsides, construction sites, parks, substations, or lots.

Apply before weeds germinate. A postemergence herbicide such as 2,4-D, **Drive® 75 DF herbicide**, **Drive® XLR8 herbicide**, **Segment® herbicide**, MSMA, or similar products may be tank mixed to control established weeds. Apply according to label instructions for the respective products and follow the most restrictive wording.

Total Vegetation Control

Pendulum AquaCap may be tank mixed with **Arsenal® herbicide**, **Sahara® DG herbicide**, **Plateau® herbicide**, **Segment**, **Roundup PRO® herbicide**, **Karmex® herbicide**, **Finale® herbicide**, **Oust® herbicide**, diuron, glyphosate or other products to provide bareground or total vegetation control. **Pendulum AquaCap** can be used to provide greater plant selectivity in areas where such action may be desired. Such sites might have roots of landscape vegetation, ornamentals, or desirable trees encroaching into the treated zone. Refer to tank mix partner labels regarding effects on desirable plants. **DO NOT** tank mix with **Arsenal**, **Sahara DG**, or **Plateau herbicides** in California.

Applications may be made to existing weeds controlled by the partner herbicide. Determine rates from the product labels before use. Follow the most restrictive label instructions.

For kochia control, combinations of **Pendulum AquaCap** with **Arsenal** or diuron are recommended if control has been a problem for other herbicides.

Landscape and Ornamental Plantings Instructions and Restrictions¹

Site	Application Instructions and Restrictions
Landscape plantings ²	1. DO NOT apply to newly transplanted ornamentals until plants have been watered and soil has been thoroughly packed and settled around roots. 2. Apply as a directed or over-the-top spray. 3. Use the lowest labeled rate when making applications to annuals. Repeat applications can be made for extended landscape weed control.
Ornamental bulbs ³	1. Pendulum AquaCap may be applied to bulb species listed on the label. 2. Apply before bulb emergence.

(continued)

Landscape and Ornamental Plantings Instructions and Restrictions¹ (continued)

Site	Application Instructions and Restrictions
Wildflowers ³	1. Pendulum AquaCap may be applied in plantings of wildflowers listed on the label. Refer to specific instructions for rate and plant tolerance. 2. For wildflowers being established from seed, apply at 4 weeks after wildflowers have germinated, but before weed seed germination.
¹ Plant only those desirable plant species listed on this label into soil treated the previous season with Pendulum AquaCap or injury may occur.	
² Before treating a large number of plants, spray a few plants and observe for 1 to 2 months for plant damage before full-scale application.	
³ DO NOT treat plants grown for food or feed. DO NOT use treated plants for food or feed.	

Weeds Controlled

Pendulum AquaCap will not control established weeds. If weeds germinate before herbicide activation, shallow cultivate to destroy existing weeds or, where practical, remove by hand. When cultivating for any reason, it should be shallow.

Use **Pendulum AquaCap** with herbicides registered for postemergence application (i.e. **Roundup® herbicide** or **Finale**) for control of established weeds. **DO NOT** apply sprays containing **Roundup** or **Finale** over the top of desirable plants. A **Pendulum AquaCap** treatment may be followed by any registered herbicide to control weeds not listed on the **Pendulum AquaCap** label.

The efficacy of **Pendulum AquaCap** will be improved if the application is followed by 1/2 inch of rainfall or its equivalent in sprinkler irrigation. Erratic weed control may result if **Pendulum AquaCap** is not activated by rainfall or irrigation within 30 days.

Commercial Ornamental Production

Application Use Sites

Pendulum AquaCap can be used in and around field, liner, and container ornamental production.

Pendulum AquaCap sprays are safe around and over the top of the established plants listed in **Table 4. Tolerant Ornamental Species**. However, not all varieties or strains of the plant species listed have been tested. Refer to ornamental instructions and restrictions in this label before any application of **Pendulum AquaCap**. Unintentional consequences such as crop injury may result because of certain environmental or growing conditions, manner of use, or application. Therefore, before treating a large number of plants, spray a few plants and observe for plant damage before full-scale application.

Application Instructions

Pendulum® AquaCap herbicide will not control established weeds. Therefore, areas to be treated should be free of established weeds at the time of treatment, or use **Pendulum AquaCap** with herbicides registered for post-emergence use in ornamentals and vegetation control sites. Consult the labels of those herbicides for suggested treatments, rates, and precautions or restrictions for use in these areas.

The efficacy of **Pendulum AquaCap** will improve if the application is followed by 1/2 inch of rainfall or its equivalent in sprinkler irrigation. If **Pendulum AquaCap** is not activated by rainfall or irrigation within 30 days, erratic weed control may result.

Applied according to label directions and under normal growing conditions, **Pendulum AquaCap** or **Pendulum AquaCap** tank mix combinations will not cause crop injury. Overapplication can result in crop-stand loss, crop injury, or soil residues. Uneven application can decrease weed control or cause crop injury.

Seedling diseases, cold weather, excessive moisture, high soil pH, high soil salt concentration, or drought can weaken seedlings and plants and increase the possibility of plant damage from **Pendulum AquaCap**.

Production Ornamentals Instructions and Restrictions¹

Site	Application Instructions and Restrictions
Newly transplanted field-grown nursery stock ^{2,3}	DO NOT make over-the-top applications at time of field transplanting. Use shielded sprayer until plantings have been established for one (1) year or more in the field. DO NOT apply until transplants have been watered and soil has been thoroughly packed and settled around transplants. Take care to ensure there are no cracks in the soil where Pendulum AquaCap could come into contact with the roots. DO NOT apply during bud swell, bud break, or at time of first flush of new growth. - Direct sprays away from grafted or budded tissue on transplants at all times.
Ornamental bulbs ³	Pendulum AquaCap may be applied to bulb species listed on the label. - Apply before bulb emergence.

(continued)

Production Ornamentals Instructions and Restrictions¹ (continued)

Site	Application Instructions and Restrictions
Newly transplanted container-grown nursery stock ^{2,3}	DO NOT apply until transplants have been watered and soil has been thoroughly packed and settled around transplants. Take care to ensure there are no cracks in the soil where Pendulum AquaCap could come into contact with the roots. - For container-grown ornamentals, delay first application of the product to bareroot liners for two (2) weeks after transplanting. DO NOT apply during bud swell, bud break, or at time of first flush of new growth. - Direct sprays away from grafted or budded tissue on transplants at all times.
Established container or field-grown nursery stock ^{2,3}	DO NOT apply during bud swell, bud break, or at time of first flush of new growth. - Apply as a directed or over-the-top spray. - If newly budded or grafted rootstock, apply with a shielded sprayer. - Take care to ensure there are no cracks in the soil where Pendulum AquaCap could come into contact with the roots.
Bareground for container placement	Apply to soil (including mulch, gravel, wood chips, or other permeable base); then water in. Replace containerized ornamentals onto pad.
Greenhouses, shadehouses, or other enclosed structures	DO NOT apply in greenhouses, shadehouses, or other enclosed structures.

¹ Plant only those desirable plant species listed on this label into soil treated the previous season with **Pendulum AquaCap** or injury may occur.

² Before treating a large number of plants, spray a few plants and observe for 1 to 2 months for plant damage before full-scale application.

³ **DO NOT** treat plants grown for food or feed. **DO NOT** use treated plants for food or feed.

Refer to **Table 3. Weed Control in All Nonturfgrass Sites** for application rates.

Ornamental Tank Mixes

Emerged weeds in ornamentals can be controlled using tank mixes containing **Segment® herbicide, Roundup® herbicide, Finale® herbicide, Ornamec® herbicide, Gallery® herbicide, Princep® herbicide**, and other similar products. **DO NOT** apply sprays containing **Roundup** or **Finale** over the top of ornamental plants.

Before tank mixing, use a simple jar test to ensure compatibility of herbicides.

Refer to manufacturer's labels for specific use directions, precautions, and limitations before tank mixing with **Pendulum® AquaCap herbicide**. Follow those that are most restrictive.

Christmas Tree Plantations

Use **Pendulum AquaCap** in and around Christmas tree plantations. Apply **Pendulum AquaCap** at planting or to established trees. When applying at planting, it is important to achieve slit closure to prevent **Pendulum AquaCap** from directly contacting the tree roots or being washed into the root zone via the open slit or root stunting may occur.

For postemergence weed control, tank mix combinations of **Pendulum AquaCap** plus **Segment, Roundup, Finale**, or other labeled herbicides are recommended. Refer to approved labeling for species recommendations. Determine rates for tank mix combinations from the product labels of **Pendulum AquaCap** and partner herbicides before use. Use caution to prevent combination sprays from direct contact with desirable foliage or injury may result. **Pendulum AquaCap** plus diuron or simazine combinations will broaden weed control spectrum; however, use of combinations may restrict **Pendulum AquaCap** use in sensitive areas. Refer to manufacturer's labels for specific use directions, precautions, and limitations before application. Follow those that are most restrictive. Refer to **Table 3. Weed Control in All Nonturfgrass Sites** for **Pendulum AquaCap** application rates.

Vegetation Control in Ornamental Production

Use **Pendulum AquaCap** for preemergence control of most annual grasses and certain broadleaf weeds as they germinate on noncropland areas such as sign posts, pumping installations, fence rows, storage areas, and windbreaks and shelterbelts. **Pendulum AquaCap** may be tank mixed with **Segment, Roundup PRO® herbicide, Karmex® herbicide, Finale**, diuron, glyphosate or other products to provide bareground or total vegetation control. **Pendulum AquaCap** can be used to provide greater plant selectivity in areas where such action may be desired. Such sites might have roots of landscape vegetation, ornamentals, or desirable trees encroaching into the treated zone. Refer to tank mix partner labels regarding effects on desirable plants. Applications may be made to existing weeds controlled by the partner herbicide. Determine rates from the product

labels before use. Follow the most restrictive label instructions. Refer to **Table 3. Weed Control in All Nonturfgrass Sites** for **Pendulum AquaCap** application rates.

Weeds Controlled

Pendulum AquaCap will not control established weeds. If weeds germinate before herbicide activation, shallow cultivate to destroy existing weeds or, where practical, remove by hand. When cultivating for any reason, it should be shallow. **Pendulum AquaCap** may be used with herbicides registered for postemergence application (i.e. **Roundup** or **Finale**) for the control of established weeds. **DO NOT** apply sprays containing **Roundup** or **Finale** over the top of desirable plants. A **Pendulum AquaCap** treatment may be followed by any registered herbicide to control weeds not listed on the **Pendulum AquaCap** label.

The efficacy of **Pendulum AquaCap** will be improved if the application is followed by 1/2 inch of rainfall or its equivalent in sprinkler irrigation. Erratic weed control may result if **Pendulum AquaCap** is not activated by rainfall or irrigation within 30 days.

Pendulum AquaCap may be used on plant species not listed on this label. Determine the suitability for such uses by treating a small number of such plants at the specified rate. Evaluate treated plants 1 to 2 months following treatment for possible injury.

Pendulum AquaCap sprays are safe around and over the top of the established plants listed in **Table 4. Tolerant Ornamental Species**. Refer to ornamentals instructions and restrictions before application. Refer to **Table 3. Weed Control in All Nonturfgrass Sites** for application rates.

Table 4. Tolerant Ornamental Species

Common Name	Scientific Name
Bedding Plants	
Ageratum	<i>Ageratum houstonianum</i>
Alyssum ¹	<i>Alyssum saxatile</i>
Anemone, poppy-flowered	<i>Anemone coronaria</i>
Artemesia	<i>Artemesia</i> spp.
Balloonflower	<i>Platycodon grandiflorum</i>
Begonia ¹	<i>Begonia</i> spp.
Cabbage, ornamental	<i>Brassica oleracea</i>
Caladium	<i>Caladium</i> spp.
Cast-iron plant	<i>Aspidistra elatior</i>
China aster ¹	<i>Callistephus chinensis</i>
Crocasmia, monteбетia	<i>Crocasmia x crocosmiiflora</i>
Dahlia ¹	<i>Dahlia</i> spp.
Dianthus	<i>Dianthus barbatus</i>

(continued)

Table 4. Tolerant Ornamental Species*(continued)*

Common Name	Scientific Name
Bedding Plants <i>(continued)</i>	
Dusty miller	<i>Senecio cineraria</i>
Gayfeather	<i>Liatris</i> spp.
Gazania, treasure flower	<i>Gazania rigens</i>
Gazania, trailing	<i>Gazania rigens leucolaena</i>
Gloxinia	<i>Gloxinia simningia</i>
Kale, ornamental	<i>Brassica napus</i>
Marigold, African	<i>Tagetes erecta</i>
Moss rose ¹	<i>Portulaca grandiflora</i>
Mum, garden	<i>Chrysanthemum</i> spp.
Periwinkle ¹	<i>Vinca major</i>
Periwinkle, rose	<i>Catharanthus roseus</i>
Petunia ¹	<i>Petunia</i> spp.
Plumosa cockscomb	<i>Celosia cristata</i>
Portulaca ¹	<i>Portulaca grandiflora</i>
Salvia ¹	<i>Salvia splendens</i>
Snapdragon	<i>Antirrhinum majus</i>
Statice ¹	<i>Limonium</i> spp.
Sweet William	<i>Dianthus barbatus</i>
Vinca ¹	<i>Vinca major</i>

¹ Application of **Pendulum® AquaCap herbicide** should not be made sooner than four weeks after transplanting for these annuals. Use the lower labeled rate.

Ground Covers

Ajuga	<i>Ajuga reptans</i>
Baby sun rose	<i>Aptenia cordifolia</i>
Beach strawberry	<i>Fragaria chiloensis</i>
Capeweed	<i>Arctotheca calendula</i>
Cinquefoil, spring	<i>Potentilla verna</i>
Coyotebrush, dwarf	<i>Baccharis pitularis</i>
Daisy, trailing African	<i>Osteospermum fruticosum</i>
Dymondia	<i>Dymondia margaretae</i>
Gazania	<i>Gazania splendens</i>
Iceplant, large leaf	<i>Carpobrotus edulis</i>
Ivy, English	<i>Hedera helix</i>
Ivy, geranium	<i>Pelargonium peltatum</i>
Jasmine, Asiatic	<i>Trachelospermum asiaticum</i>
Jasmine, primrose	<i>Jasminum mesnyi</i>
Jessamine, Carolina	<i>Gelsemium sempervirens</i>

*(continued)***Table 4. Tolerant Ornamental Species***(continued)*

Common Name	Scientific Name
Ground Covers <i>(continued)</i>	
Manzanita, bearberry	<i>Arctostaphylos uva-ursi</i>
Miscanthus	<i>Miscanthus</i> spp.
Mondograss	<i>Ophiopogon japonica</i>
Morningglory	<i>Convolvulus</i> spp.
Myoporum	<i>Myoporum parvifolium</i>
Pachysandra	<i>Pachysandra terminalis</i>
Potentilla	<i>Potentilla fruticosa</i>
Red apple	<i>Aptenia cordifolia</i>
Rosemary	<i>Rosemarinus officinalis</i>
Rose-of-Sharon	<i>Hypericum calycinum</i>
St. Johnswort, creeping	<i>Hypericum calycinum</i>
Sand strawberry	<i>Fragaria chiloensis</i>
Sedum	<i>Sedum spurium</i>
Stonecrop	<i>Sedum spurium</i>
Verbena, Peruvian	<i>Verbena peruviana</i>
Vervain	<i>Verbena peruviana</i>
Vetch, crown	<i>Vicia sativa</i>
Vinca	<i>Vinca minor</i>
Wintercreeper	<i>Euonymus fortunei</i>

Ornamental Grasses

Beach grass	<i>Ammophila breviligulata</i>
Fescue, blue	<i>Festuca ovina</i>
Fescue, sheep	<i>Festuca ovina</i>
Fountain grass	<i>Pennisetum setaceum</i>
Pampas grass	<i>Cortaderia selloana</i>
Reed canary grass	<i>Phalaris arundinacea</i>
Reed, giant	<i>Arundo</i> spp.
Ribbon grass	<i>Phalaris arundinacea</i>
Tufted hair grass	<i>Deschampsia caespitosa</i>

Perennials

Acacia	<i>Acacia redolens</i>
Asparagus	<i>Asparagus</i> spp.
Aster, New York	<i>Aster novi-belgii</i>
Aster, Stokes	<i>Stokesia laevis</i>
Astilbe (False spirea)	<i>Astilbe</i> spp.
Avens	<i>Geum triflorum</i>
Baby's breath	<i>Gypsophila elegans</i>

(continued)

Table 4. Tolerant Ornamental Species*(continued)*

Common Name	Scientific Name
Perennials <i>(continued)</i>	
Baby's breath	<i>Gypsophila paniculata</i>
Beard-tongue	<i>Penstemon</i> spp.
Bellflower	<i>Campanula</i> spp.
Bellflower, willow	<i>Campanula persicifolia</i>
Bird of paradise	<i>Caesalpinia pulcherrima</i>
Black-eyed Susan ¹	<i>Rudbeckia hirta</i>
Blanket flower ¹	<i>Gaillardia aristata</i>
Blanket flower ¹	<i>Gaillardia x grandiflora</i>
Bleeding heart	<i>Dicentra spectabilis</i>
Butterfly weed	<i>Asclepias tuberosa</i>
California poppy ¹	<i>Eschscholzia californica</i>
Calla lily	<i>Zantedeschia aethiopica</i>
Canna, common garden	<i>Canna generalis</i> 'Lucifer'
Carex	<i>Carex</i> spp.
Chincherinchee	<i>Ornithogalum thyrsoides</i>
Clover, crimson ¹	<i>Trifolium incarnatum</i>
Columbine	<i>Aquilegia</i> 'McKana Giant'
Columbine	<i>Aquilegia x hybrida</i>
Coreopsis (Tickseed) ¹	<i>Coreopsis lanceolata</i>
Crinum lily	<i>Crinum</i> spp.
Crocus	<i>Crocus</i> spp.
Daffodil (Narcissus)	<i>Narcissus</i> spp.
Daylily	<i>Hemerocallis</i> spp.
Fairy duster	<i>Calliandra eriophylla</i>
Fern, asparagus	<i>Asparagus officinalis</i>
Fern, Boston	<i>Nephrolepis exaltata</i>
Fern, hay-scented	<i>Dennstaedtia punctilobula</i>
Fern, leatherleaf ²	<i>Rumohra adiantiformis</i>
Fortnight lily	<i>Moraea</i> spp.
Foxglove	<i>Digitalis purpurea</i>
Freesia	<i>Freesia x hybrida</i>
Gaillardia	<i>Gaillardia pulchella</i>
Geum	<i>Geum</i> spp.
Gladiolus	<i>Gladiolus</i> spp.
Heather, dwarf	<i>Calluna vulgaris</i>
Hosta	<i>Hosta</i> spp.
Indian blanket ¹	<i>Gaillardia pulchella</i>
Iris, Japanese	<i>Iris kaempferi</i>

*(continued)***Table 4. Tolerant Ornamental Species***(continued)*

Common Name	Scientific Name
Perennials <i>(continued)</i>	
Lantana, weeping	<i>Lantana montevidensis</i>
Leopard's bane	<i>Doronicum cordatum</i>
Lily	<i>Lilium</i> spp.
Liriope, big blue	<i>Liriope muscari</i>
Liriope, creeping	<i>Liriope spicata</i>
Liriope, variegated	<i>Liriope muscari</i>
Montbretia	<i>Crocsmia crocosmiiflora</i>
Moonbeam	<i>Coreopsis verticillata</i>
Mugwort, Western	<i>Artemisia ludoviciana</i>
Nightshade	<i>Solanum</i> spp.
Orchid, peacock	<i>Acidantha bicolor</i>
Oxeye daisy ¹	<i>Chrysanthemum leucanthemum</i>
Palm, areca	<i>Chrysalidocarpus lutescens</i>
Palm, pygmy date	<i>Phoenix roebelenae</i>
Palm, Washington	<i>Washingtonia robusta</i>
Peony, Chinese	<i>Paeonia lactiflora</i>
Purple coneflower ¹	<i>Echinacea purpurea</i>
Purple gay-feather	<i>Liatris pycnostachya</i>
Purple loosestrife	<i>Lythrum virgatum</i>
Rodgersia	<i>Rodgersia henrici</i>
Rosemary	<i>Rosmarinus officinalis</i>
Sedge	<i>Carex</i> spp.
Shasta daisy ¹	<i>Chrysanthemum x superbum</i>
Statice	<i>Limonium latifolia</i>
Statice, German	<i>Goniolimon tartaricum</i>
Sweet flag	<i>Acorus calamus</i>
Tickseed ¹	<i>Coreopsis lanceolata</i>
Texas bluebonnet	<i>Lupinus texensis</i>
Tulip	<i>Tulipa</i> spp.
Wonder flower	<i>Ornithogalum thyrsoides</i>
Yarrow ¹	<i>Achillea millefolium</i>
Zephyr lily	<i>Zephyranthes</i> spp.

¹ These plants have shown tolerance to **Pendulum® AquaCap herbicide** applications of 4.2 pints/A (2.1 quarts/A) in wildflower plantings established from seed.

² Applications of **Pendulum AquaCap** to immature ferns (during periods of new growth of fronds) may result in some injury.

(continued)

Table 4. Tolerant Ornamental Species*(continued)*

Common Name	Scientific Name
Shrubs	
Abelia, glossy	<i>Abelia grandiflora</i>
Alder, witch	<i>Fothergilla gardenii</i>
Aucuba, gold	<i>Aucuba japonica</i>
Azalea	<i>Rhododendron</i> spp.
Bamboo, heavenly	<i>Nandina domestica</i>
Barberry	<i>Berberis gladywensis</i>
Barberry, Japanese	<i>Berberis thunbergii</i>
Blue indigo bush	<i>Dalea gregii</i>
Bottlebrush, lemon	<i>Callistemon citrinus</i>
Boxwood, common	<i>Buxus sempervirens</i>
Boxwood, Japanese	<i>Buxus microphylla</i>
Brittlebush	<i>Encelia farinosa</i>
Buttonbush	<i>Cephalanthus occidentalis</i>
Camellia	<i>Camellia japonica</i>
Cape jasmine	<i>Gardenia jasminoides</i>
Cassia, feathery	<i>Cassia artemisioides</i>
Cordyline	<i>Cordyline</i> spp.
Correa	<i>Correa</i> spp.
Cotoneaster	<i>Cotoneaster apiculatus</i>
Cotoneaster, bearberry	<i>Cotoneaster dammeri</i>
Cotoneaster, rock	<i>Cotoneaster horizontalis</i>
Cypress, Italian	<i>Cupressus sempervirens</i>
Cypress, Leyland	<i>Cupressocyparis leylandii</i>
Deutzia, slender	<i>Deutzia gracilis</i>
Dogwood, red twig	<i>Cornus sericea</i>
Elaeagnus	<i>Elaeagnus ebbingei</i>
Escallonia	<i>Escallonia fradesii</i>
Euonymus	<i>Euonymus fortunei</i>
Euonymus, golden	<i>Euonymus japonica</i>
Euonymus, winged	<i>Euonymus alata</i>
Firethorn	<i>Pyracantha coccinea</i>
Forsythia, border	<i>Forsythia intermedia</i>
Fragrant olive	<i>Osmanthus fragrans</i>
Fuchsia, California	<i>Zauschneria californica</i>
Gardenia	<i>Gardenia jasminoides</i>
Hawthorne, Indian	<i>Raphiolepis indica</i>
Hibiscus	<i>Hibiscus syriacus</i>
Holly, Chinese	<i>Ilex cornuta</i>

*(continued)***Table 4. Tolerant Ornamental Species***(continued)*

Common Name	Scientific Name
Shrubs <i>(continued)</i>	
Holly, Japanese	<i>Ilex crenata</i>
Holly, Fosters	<i>Ilex attenuata</i> 'Fosteri'
Holly, Savannah	<i>Ilex attenuata</i>
Holly, Yaupon	<i>Ilex vomitoria</i>
Honeysuckle, bush	<i>Diervilla lonicera</i>
Hopseed bush	<i>Dodonaea viscosa</i>
Hopbush	<i>Dodonaea viscosa</i>
Hydrangea	<i>Hydrangea macrophylla</i>
Juniper	<i>Juniperus</i> spp.
Juniper, Chinese	<i>Juniperus chinensis</i> v. <i>pfitzer</i>
Juniper, shore	<i>Juniperus conferta</i>
Juniper, trailing	<i>Juniperus horizontalis</i>
Laurel, cherry	<i>Prunus laurocerasus</i>
Laurel, mountain	<i>Kalmia latifolia</i>
Laurel, Otto Luyken	<i>Prunus laurocerasus</i>
Laurel, Schipka	<i>Prunus schipkanensis</i>
Laurustinus	<i>Viburnum tinus</i>
Lavender, English	<i>Lavandula angustifolia</i>
Leucothoe	<i>Leucothoe fontanesiana</i>
Leucothoe, coast	<i>Leucothoe axillaris</i>
Lilac, cut-leaf	<i>Syringa laciniata</i>
Lily-of-the-Nile	<i>Agapanthus africanus</i>
Mahonia	<i>Mahonia aquifolium</i>
Mock orange	<i>Pittosporum tobira</i>
Myrtle, compact	<i>Myrtus communis</i>
Myrtle, wax	<i>Myrica cerifera</i>
Nandina	<i>Nandina domestica</i>
Oleander	<i>Nerium oleander</i>
Oregon grape	<i>Mahonia aquifolium</i>
Osmanthus	<i>Osmanthus fragrans</i>
Palm, European fan	<i>Chamaerops humilis</i>
Palm, Mediterranean fan	<i>Chamaerops</i> spp.
Phlox, prickly	<i>Leptodactylon californicum</i>
Photinia, Fraser	<i>Photinia x fraseri</i>
Pieris, Japanese	<i>Pieris japonica</i>
Pine, Mugo	<i>Pinus mugo</i>
Plum, Natal	<i>Carissa grandiflora</i>
Privet, California	<i>Ligustrum ovalifolium</i>

(continued)

Table 4. Tolerant Ornamental Species*(continued)*

Common Name	Scientific Name
Shrubs <i>(continued)</i>	
Privet, glossy	<i>Ligustrum lucidum</i>
Privet, variegated	<i>Ligustrum sinensis</i>
Privet, waxleaf	<i>Ligustrum japonicum</i>
Pyracantha	<i>Pyracantha coccinea</i>
Quince, flowering	<i>Chaenomeles japonica</i>
Ranger, Texas	<i>Leucophyllum frutescens</i>
Redroot	<i>Ceanothus</i> spp.
Rhododendron	<i>Rhododendron</i> spp.
Robira	<i>Pittosporum tobira</i>
Rose	<i>Rosa</i> spp.
Spice plant	<i>Illicium parviflorum</i>
Spiraea	<i>Spiraea vanhouttei</i>
Spiraea, Anthony Waterer	<i>Spiraea x bumalda</i>
Spiraea, Japanese	<i>Spiraea japonica</i>
Sweet bay	<i>Laurus nobilis</i>
Trumpet bush	<i>Tecoma stans</i>
Verbena, lemon	<i>Aloysia triphylla</i>
Viburnum	<i>Viburnum suspensum</i>
Vitex	<i>Vitex</i> spp.
Weigela	<i>Weigela florida</i>
Wild lilac	<i>Ceanothus</i> spp.
Wisteria	<i>Wisteria</i> spp.
Xylosma	<i>Xylosma congestum</i>
Yellowbells	<i>Tecoma stans</i>
Yew ¹	<i>Taxus media</i>
Yew, Japanese ¹	<i>Taxus cuspidata</i>
Yew, Southern ¹	<i>Podocarpus macrophyllus</i>
Yucca, Adam's needle	<i>Yucca filamentosa</i>
Yucca, weeping	<i>Yucca pendula</i>

¹ Applications of **Pendulum® AquaCap herbicide** should not be made during spring growth or injury to terminals may occur.

Trees

Alder, European black	<i>Alnus glutinosa</i>
Apple	<i>Malus</i> spp.
Arborvitae, American	<i>Thuja occidentalis</i>
Arbutus	<i>Arbutus</i> spp.
Ash, red	<i>Fraxinus pennsylvanica</i>

*(continued)***Table 4. Tolerant Ornamental Species***(continued)*

Common Name	Scientific Name
Trees <i>(continued)</i>	
Ash, white	<i>Fraxinus americana</i>
Aspen, bigtooth	<i>Populus grandidentata</i>
Aspen, quaking	<i>Populus tremuloides</i>
Basswood	<i>Tilia</i> spp.
Birch, European weeping	<i>Betula pendula</i>
Birch, river	<i>Betula nigra</i>
Buckeye, red	<i>Aesculus pavia</i>
Cedar, white	<i>Thuja occidentalis</i>
Chamaecyparis, Boulevard	<i>Chamaecyparis pisifera</i>
Cherry, black	<i>Prunus serotina</i>
Cherry, choke	<i>Prunus virginiana</i>
Cherry, Kwanzan	<i>Prunus serrulata</i>
Cherry, Nanking	<i>Prunus tomentosa</i>
Cottonwood	<i>Populus deltoides</i>
Crabapple	<i>Malus</i> spp.
Crape myrtle	<i>Lagerstroemia indica</i>
Cryptomeria, Japanese cedar	<i>Cryptomeria japonica</i>
Cypress, bald	<i>Taxodium distichum</i>
Cypress, Leyland	<i>Cupressocyparis leylandii</i>
Dogwood, flowering	<i>Cornus florida</i>
Dogwood, Korean	<i>Cornus kousa</i>
Dogwood, shrub	<i>Cornus</i> spp.
Dogwood, silky	<i>Cornus amomum</i>
Elm	<i>Ulmus japonica</i>
Elm, winged	<i>Ulmus alata</i>
Eucalyptus (Silver-dollar) tree	<i>Eucalyptus cinerea</i>
Fir, balsam	<i>Abies balsamae</i>
Fir, Douglas	<i>Pseudotsuga menziesii</i>
Fir, Fraser	<i>Abies fraseri</i>
Fir, white	<i>Abies concolor</i>
Franklinia	<i>Franklinia</i> spp.
Fringe tree	<i>Chlonenthus retusus</i>
Ginkgo	<i>Ginkgo biloba</i>
Gum, black	<i>Nyssa sylvatica</i>
Gum, sour	<i>Nyssa sylvatica</i>
Haw, black	<i>Viburnum prunifolium</i>

(continued)

Table 4. Tolerant Ornamental Species*(continued)*

Common Name	Scientific Name
Trees (continued)	
Hawthorn	<i>Crataegus</i> spp.
Hemlock, Canada	<i>Tsuga canadensis</i>
Hemlock, Eastern	<i>Tsuga canadensis</i>
Holly, American	<i>Ilex opaca</i>
Honeylocust	<i>Gleditsia triacanthos</i>
Lilac, common	<i>Syringa vulgaris</i>
Lilac, Japanese tree	<i>Syringa reticulata</i>
Linden	<i>Tilia</i> spp.
Magnolia, saucer	<i>Magnolia soulangiana</i>
Magnolia, Southern	<i>Magnolia grandiflora</i>
Magnolia, star	<i>Magnolia stellata</i>
Maidenhair tree	<i>Ginkgo biloba</i>
Maple, Japanese	<i>Acer palmatum</i>
Maple, Norway	<i>Acer platanoides</i>
Maple, red	<i>Acer rubrum</i>
Maple, sugar	<i>Acer saccharum</i>
Nannyberry, rusty	<i>Viburnum rufidulum</i>
Oak, chinquapin	<i>Quercus muehlenbergii</i>
Oak, live	<i>Quercus virginiana</i>
Oak, pin	<i>Quercus palustris</i>
Oak, red	<i>Quercus rubra</i>
Oak, swamp chestnut	<i>Quercus michauxii</i>
Oak, water	<i>Quercus nigra</i>
Oak, white	<i>Quercus alba</i>
Oak, willow	<i>Quercus phellos</i>
Olive	<i>Olea europaea</i>
Palm, date	<i>Phoenix</i> spp.
Palm, fan	<i>Washingtonia</i> spp.
Palm, pindo	<i>Butia</i> spp.
Palm, Washington	<i>Washingtonia</i> spp.
Peach	<i>Prunus persica</i>
Pear, Bradford	<i>Pyrus calleryana</i> 'Bradford'
Pecan	<i>Carya illinoensis</i>
Pine, Austrian	<i>Pinus nigra</i>
Pine, Italian stone	<i>Pinus pinea</i>
Pine, loblolly	<i>Pinus taeda</i>
Pine, Monterey	<i>Pinus radiata</i>
Pine, red	<i>Pinus resinosa</i>

*(continued)***Table 4. Tolerant Ornamental Species***(continued)*

Common Name	Scientific Name
Trees (continued)	
Pine, Scotch	<i>Pinus sylvestris</i>
Pine, Virginia	<i>Pinus virginiana</i>
Pine, white	<i>Pinus strobus</i>
Plum, purple leaf	<i>Prunus cerasifera</i>
Poplar, black	<i>Populus nigra</i>
Redcedar, Eastern	<i>Juniperus virginiana</i>
Redcedar, Western	<i>Thuja plicata</i>
Red ironbark	<i>Eucalyptus sideroxylon</i> 'Rosea'
Redwood, dawn	<i>Metasequoia</i> <i>glyptostroboides</i>
Sequoia, giant	<i>Sequoiadendron giganteum</i>
Serviceberry	<i>Amelanchier laevis</i>
Sourwood	<i>Oxydendrum arboreum</i>
Spruce, Colorado blue	<i>Picea pungens</i>
Spruce, dwarf Alberta	<i>Picea glauca</i> 'Albertiana'
Spruce, Norway	<i>Picea abies</i>
Spruce, white	<i>Picea glauca</i>
Sweetgum	<i>Liquidambar styraciflua</i>
Sycamore	<i>Platanus occidentalis</i>
Trachycarpus	<i>Trachycarpus</i> spp.
Tulip tree	<i>Liriodendron tulipifera</i>
Walnut, black	<i>Juglans nigra</i>
Willow, weeping	<i>Salix babylonica</i>
Yellowwood	<i>Cladrastis lutea</i>

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The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

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We create chemistry

Safety Data Sheet

PENDULUM AQUACAP HERBICIDE

Revision date : 2012/11/29
Version: 4.0

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1. Product and Company Identification

Company
BASF CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

24 Hour Emergency Response Information
CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP (4357)

Substance number: 000000171005
Molecular formula: C13 H19 N3 O4
Chemical family: aniline derivative
Synonyms: pendimethalin

2. Hazards Identification

Emergency overview

CAUTION:
Causes eye irritation.
HARMFUL IF ABSORBED THROUGH SKIN.
HARMFUL IF SWALLOWED.
KEEP OUT OF REACH OF CHILDREN.
KEEP OUT OF REACH OF DOMESTIC ANIMALS.
Avoid contact with the skin, eyes and clothing.

See Product Label for additional precautionary statements.

State of matter: liquid
Colour: yellow to brown
Odour: faint odour, nutty

Potential health effects

Primary routes of exposure:

Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquified gases.

Acute toxicity:

Relatively nontoxic after single ingestion. Relatively nontoxic after short-term inhalation. Relatively nontoxic after short-term skin contact.

Irritation / corrosion:

May cause slight but temporary irritation to the eyes. May cause slight irritation to the skin.

Sensitization:

Skin sensitizing effects were not observed in animal studies.

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Medical conditions aggravated by overexposure:

Individuals with pre-existing diseases of the respiratory system, skin or eyes may have increased susceptibility to excessive exposures.

Signs and symptoms of overexposure:

orange-red coloured urine caused by dye (not associated with methemoglobinemia)

Potential environmental effects

Aquatic toxicity:

Very toxic (acute effect) to aquatic organisms.

Terrestrial toxicity:

Acutely harmful to terrestrial organisms.

3. Composition / Information on Ingredients

CAS Number	Content (W/W)	Chemical name
40487-42-1	38.7 %	pendimethalin
	61.3 %	Proprietary ingredients

4. First-Aid Measures

General advice:

First aid providers should wear personal protective equipment to prevent exposure. Remove contaminated clothing. Move person to fresh air. If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or physician for treatment advice. Have the product container or label with you when calling a poison control center or doctor or going for treatment.

If inhaled:

Remove the affected individual into fresh air and keep the person calm.

If on skin:

Rinse skin immediately with plenty of water for 15 - 20 minutes.

If in eyes:

Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing.

If swallowed:

Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Do not induce vomiting. Have person sip a glass of water if able to swallow.

Note to physician

Antidote: No known specific antidote.
Treatment: Treat symptomatically.

5. Fire-Fighting Measures

Flash point:	> 230 °F	
Autoignition:	354 °C	(DIN EN 14522)
Lower explosion limit:		not determined
Upper explosion limit:		not determined
Flammability:	not highly flammable	

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Suitable extinguishing media:

foam, dry powder, carbon dioxide, water spray

Hazards during fire-fighting:

carbon monoxide, carbon dioxide, nitrogen dioxide, nitrogen oxide, Hydrocarbons,

If product is heated above decomposition temperature, toxic vapours will be released. The substances/groups of substances mentioned can be released in case of fire.

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Evacuate area of all unnecessary personnel. Contain contaminated water/firefighting water. Do not allow to enter drains or waterways.

6. Accidental release measures

Personal precautions:

Take appropriate protective measures. Clear area. Shut off source of leak only under safe conditions. Extinguish sources of ignition nearby and downwind. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

Environmental precautions:

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water.

Cleanup:

Dike spillage. Pick up with suitable absorbent material. Place into suitable containers for reuse or disposal in a licensed facility. Spilled substance/product should be recovered and applied according to label rates whenever possible. If application of spilled substance/product is not possible, then spills should be contained, solidified, and placed in suitable containers for disposal. After decontamination, spill area can be washed with water. Collect wash water for approved disposal.

7. Handling and Storage

Handling

General advice:

RECOMMENDATIONS ARE FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS. PESTICIDE APPLICATORS & WORKERS must refer to the Product Label and Directions for Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170. Ensure adequate ventilation. Provide good ventilation of working area (local exhaust ventilation if necessary). Keep away from sources of ignition - No smoking. Keep container tightly sealed. Protect contents from the effects of light. Protect against heat. Protect from air. Handle and open container with care. Do not open until ready to use. Once container is opened, content should be used as soon as possible. Avoid aerosol formation. Avoid dust formation. Provide means for controlling leaks and spills. Do not return residues to the storage containers. Follow label warnings even after container is emptied. The substance/product may be handled only by appropriately trained personnel. Avoid all direct contact with the substance/product. Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts/mists/vapours. Wear suitable personal protective clothing and equipment.

Protection against fire and explosion:

The relevant fire protection measures should be noted. Fire extinguishers should be kept handy. Avoid all sources of ignition: heat, sparks, open flame. Sources of ignition should be kept well clear. Avoid extreme heat. Keep away from oxidizable substances. Electrical equipment should conform to national electric code. Ground all transfer equipment properly to prevent electrostatic discharge. Electrostatic discharge may cause ignition.

Storage

General advice:

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Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame. Protect containers from physical damage. Protect against contamination. The authority permits and storage regulations must be observed.

Storage incompatibility:

General advice: Segregate from incompatible substances. Segregate from foods and animal feeds. Segregate from textiles and similar materials.

Temperature tolerance

Protect from temperatures below: 0 °C

Changes in the properties of the product may occur if substance/product is stored below indicated temperature for extended periods of time.

Protect from temperatures above: 40 °C

Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

8. Exposure Controls and Personal Protection

Users of a pesticidal product should refer to the product label for personal protective equipment requirements.

Advice on system design:

Whenever possible, engineering controls should be used to minimize the need for personal protective equipment.

Personal protective equipment

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) TC23C Chemical/Mechanical type filter system to remove a combination of particles, gas and vapours. For situations where the airborne concentrations may exceed the level for which an air purifying respirator is effective, or where the levels are unknown or Immediately Dangerous to Life or Health (IDLH), use NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Hand protection:

Chemical resistant protective gloves, Protective glove selection must be based on the user's assessment of the workplace hazards.

Eye protection:

Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:

Wear long sleeved work shirt and long work pants in addition to other stated personal protective equipment. Work place should be equipped with a shower and an eye wash. Handle in accordance with good industrial hygiene and safety practice. Personal protective equipment should be decontaminated prior to reuse. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Take off immediately all contaminated clothing. Store work clothing separately. Hands and/or face should be washed before breaks and at the end of the shift. No eating, drinking, smoking or tobacco use at the place of work. Keep away from food, drink and animal feeding stuffs.

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9. Physical and Chemical Properties

Form:	microencapsulated, suspension	
Odour:	faint odour, nutty	
Colour:	yellow to brown	
pH value:	approx. 8 - 10	(1 %(m), 21 °C)
Melting point:	approx. 0 °C	Information applies to the solvent.
Density:	approx. 9.79 lb/USg	(68 °F)
Vapour density:		not determined
Partitioning coefficient n-octanol/water (log Pow):		not applicable
Viscosity, dynamic:	128 mPa.s	(20 °C) (OECD 114)
Solubility in water:		dispersible
Molar mass:	281.31 g/mol	

10. Stability and Reactivity

Conditions to avoid:

Avoid all sources of ignition: heat, sparks, open flame. Avoid prolonged storage. Avoid electro-static discharge. Avoid contamination. Avoid prolonged exposure to extreme heat. Avoid extreme temperatures.

Substances to avoid:

strong acids, strong bases, strong oxidizing agents

Hazardous reactions:

The product is chemically stable.

Hazardous polymerization will not occur. No hazardous reactions if stored and handled as prescribed/indicated.

Decomposition products:

No hazardous decomposition products if stored and handled as prescribed/indicated., Prolonged thermal loading can result in products of degradation being given off.

Thermal decomposition:

Possible thermal decomposition products:

carbon monoxide, carbon dioxide, nitrogen dioxide, nitrogen oxide, Hydrocarbons

Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released.

Oxidizing properties:

not fire-propagating

11. Toxicological information

Acute toxicity

Oral:

Type of value: LD50

Species: rat (male/female)

Value: > 5,000 mg/kg (OECD Guideline 401)

Inhalation:

Type of value: LC50

Species: rat (male/female)

Value: > 5.23 mg/l (OECD Guideline 403)

Exposure time: 4 h

An aerosol was tested.

No mortality was observed.

Dermal:

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Type of value: LD50
Species: rat (male/female)
Value: > 5,000 mg/kg (OECD Guideline 402)

Irritation / corrosion

Skin:

Species: rabbit
Result: mildly irritating

Eye:

Species: rabbit
Result: mildly irritating

Sensitization:

modified Buehler test
Species: guinea pig
Result: Non-sensitizing.
Method: OECD Guideline 406

Repeated dose toxicity

Information on: pendimethalin

Assessment of repeated dose toxicity:

No substance-specific organotoxicity was observed after repeated administration to animals. Adaptive effects were observed after repeated exposure in animal studies.

Information on: Diphenylmethane-4,4'-diisocyanate (MDI)

Assessment of repeated dose toxicity:

The substance may cause damage to the olfactory epithelium after repeated inhalation. These effects are not relevant to humans at occupational levels of exposure.

Information on: Methylenediphenyl diisocyanate

Assessment of repeated dose toxicity:

The substance may cause damage to the olfactory epithelium after repeated inhalation. These effects are not relevant to humans at occupational levels of exposure.

Carcinogenicity

Information on: pendimethalin

In long-term studies in rats the substance induced thyroid tumors. The effect is caused by an animal specific mechanism that has no human counter part. In long-term studies in mice in which the substance was given by feed, a carcinogenic effect was not observed.

Information on: Diphenylmethane-4,4'-diisocyanate (MDI)

A carcinogenic potential cannot be excluded after prolonged exposure to severely irritating concentrations. These effects are not relevant to humans at occupational levels of exposure.

Information on: Methylenediphenyl diisocyanate

A carcinogenic potential cannot be excluded after prolonged exposure to severely irritating concentrations. These effects are not relevant to humans at occupational levels of exposure.

Development:

Information on: Diphenylmethane-4,4'-diisocyanate (MDI)

The substance did not cause malformations in animal studies; however, toxicity to development was observed at high doses that were toxic to the parental animals.

Information on: Methylenediphenyl diisocyanate

The substance did not cause malformations in animal studies; however, toxicity to development was observed at high doses that were toxic to the parental animals.

Experiences in humans:

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Pendimethalin is a strongly orange-red compound - virtually an aniline dye. Cases have been described of orange-yellow colouration of urine following heavy exposure of workers to the dust of pendimethalin. Despite its structure as both a nitro-compound and aromatic amine, exposure to pendimethalin is NOT associated with methemoglobinemia.

Other Information:

Misuse can be harmful to health.

12. Ecological Information

Fish

Acute:

OECD Guideline 203 static

Oncorhynchus mykiss/LC50 (96 h): 20.36 mg/l

Aquatic invertebrates

Acute:

OECD Guideline 202, part 1 static

Daphnia magna/EC50 (48 h): > 100 mg/l

Aquatic plants

Toxicity to aquatic plants:

OECD Guideline 201 green algae/EC50 (72 h): 1.49 mg/l

Non-Mammals

Information on: pendimethalin

Other terrestrial non-mammals:

mallard duck/LD50: 1,421 mg/kg

Acutely harmful to terrestrial organisms.

Honey bee/LD50: 49.8 ug/bee

Acutely harmful to terrestrial organisms.

Environmental mobility:

Information on: pendimethalin

Assessment transport between environmental compartments:

Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

Other adverse effects:

The ecological data given are those of the active ingredient. Do not release untreated into natural waters.

13. Disposal considerations

Waste disposal of substance:

Pesticide wastes are regulated. Improper disposal of excess pesticide, spray mix or rinsate is a violation of federal law. If pesticide wastes cannot be disposed of according to label instructions, contact the State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

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Container disposal:

Rinse thoroughly at least three times (triple rinse) in accordance with EPA recommendations. Consult state or local disposal authorities for approved alternative procedures such as container recycling. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

RCRA: D028

The waste codes are manufacturer's recommendations based on the designated use of the product. Other use and special waste disposal treatment on customer's location may require different waste-code assignments.

14. Transport Information

Land transport

USDOT

Not classified as a dangerous good under transport regulations

Sea transport

IMDG

Hazard class: 9
Packing group: III
ID number: UN 3082
Hazard label: 9, EHSM
Marine pollutant: YES
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(contains PENDIMETHALIN)

Air transport

IATA/ICAO

Hazard class: 9
Packing group: III
ID number: UN 3082
Hazard label: 9, EHSM
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(contains PENDIMETHALIN)

Further information

DOT: This product is regulated if the amount in a single receptacle exceeds the Reportable Quantity (RQ). Please refer to Section 15 of this MSDS for the RQ for this product.

15. Regulatory Information

Federal Regulations

Registration status:

Crop Protection TSCA, US released / listed

Chemical TSCA, US blocked / not listed

OSHA hazard category: Skin and/or eye irritant; Chronic target organ effects reported

EPCRA 311/312 (Hazard categories): Acute; Chronic

EPCRA 313:

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CAS Number

40487-42-1

Chemical name

pendimethalin

16. Other Information

Refer to product label for EPA registration number.

Recommended use: herbicide

NFPA Hazard codes:

Health : 1 Fire: 1 Reactivity: 1 Special:

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MSDS Prepared by:

BASF NA Product Regulations

msds@basf.com

MSDS Prepared on: 2012/11/29

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