

# SHORE-KLEAR®

## AQUATIC HERBICIDE

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read the entire label before using this product. Use strictly in accordance with label precautionary statements and directions.

### GENERAL INFORMATION

This product, a water-soluble liquid, mixes readily with water and **nonionic surfactant** to be applied as a foliar spray for the control or destruction of many herbaceous and woody plants.

This product moves through the plant from the point of foliage contact to and into the root system.

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

Always use the higher rate of this product per acre within the recommended range when vegetation is heavy or dense.

Do not treat weeds or brush under poor growing conditions such as drought stress, disease or insect damage, as reduced control may result. Reduced results may also occur when treating weeds or brush heavily covered with dust. Reduced control may result when applications are made to any weed or brush species that have been mowed, grazed or cut, and have not been allowed to regrow to the recommended stage for treatment. Rainfall or irrigation occurring within 6 hours after application may reduce effectiveness. Heavy rainfall or irrigation within 2 hours after application may wash the product off the foliage and a repeat treatment may be required.

When this product comes in contact with soil (on the soil surface or as suspended soil or sediment in water) it is bound to soil particles. Under recommended use situations, once this product is bound to soil particles, it is not available for plant uptake and will not harm off-site vegetation where roots grow into the treatment area or if the soil is transported off-site. Under recommended use conditions, the strong affinity of this product to soil particles prevents this product from leaching out of the soil profile and entering ground water. The affinity between this product and soil particles remains until this product is degraded, which is primarily a biological degradation process carried out under both aerobic and anaerobic conditions by soil micro flora.

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. Read "WARRANTY" before buying or using. If items are not acceptable, return at once unopened. Buyer and all users are responsible for all loss or damage in connection with the use of handling of mixtures of this product or other materials that are not expressly recommended in this label. Mixing this product with herbicides or other materials not recommended in this label may result in reduced performance.

For more product information, call toll-free 1-800-558-5106.

**ATTENTION: AVOID CONTACT WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS, OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT. AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.**

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

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

### AQUATIC AND OTHER NONCROP SITES

When applied as directed and under the conditions described in the "**WEEDS CONTROLLED**" section in this label, this product will control or partially control the labeled weeds growing in the following industrial, recreational and public areas or other similar aquatic and terrestrial sites.

**Aquatic Sites** - This product may be applied to emerged weeds in all bodies of fresh and brackish water which may be flowing, non-flowing or transient. This includes lakes, rivers, streams, ponds, estuaries, rice levees, seeps, irrigation and drainage ditches, canals, reservoirs, wastewater treatment facilities, wildlife habitat restoration and management areas, and similar sites.

If aquatic sites are present in the noncrop area and are part of the intended treatment, read and observe the following directions:

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

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

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

**NOTE:** Do not apply this product directly to water within ½ mile up-stream of an active potable water intake in flowing water (i.e., river, stream, etc.) or within ½ mile of an active potable water intake in a standing body of water such as lake, pond or reservoir. To make aquatic applications around and within ½ mile of active potable water intakes, the water intake must be turned off for a minimum period of 48 hours after the application.

## FOR USE ON EMERGED AQUATIC WEEDS AND BRUSH IN AQUATIC AND OTHER NONCROP SITES

EPA Reg. No. 228-365-8959

EPA Est. 42291-GA-1

### ACTIVE INGREDIENT:

Glyphosate, N-(phosphonomethyl)glycine,  
in the form of its isopropylamine salt\*.....53.8%  
OTHER INGREDIENTS:.....46.2%  
TOTAL:.....100.0%

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



Manufactured for:

**ab** applied biochemists

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The water intake may be turned on prior to 48 hours if the glyphosate level in the intake water is below 0.7 parts per million as determined by laboratory analysis. These aquatic applications may be made ONLY in those cases where there are alternative water sources or holding ponds which would permit the turning off of an active potable water intake for a minimum period of 48 hours after the applications. This restriction does not apply to intermittent inadvertent overspray of water in terrestrial use sites.

For treatments after drawdown of water or in dry ditches, allow 7 or more days after treatment before reintroduction of water to achieve maximum weed control. Apply this product within 1 day after drawdown to ensure application to actively growing weeds. Floating Mats of vegetation may require retreatment. Avoid wash-off of sprayed foliage by spray boat or recreational boat backwash or by rainfall within 6 hours of application. Do not re-treat within 24 hours following the initial treatment.

Applications made to moving bodies of water must be made while traveling upstream to prevent concentration of this herbicide in water.

When making any bankside applications, do not overlap more than 1 foot into open water. Do not spray in bodies of water where weeds do not exist. The maximum application rate of 7½ pints per acre must not be exceeded in any single broadcast application that is being made over water.

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

Other Noncrop-Type Sites - This product may be used to control the listed weeds in terrestrial noncrop sites and/or in aquatic sites within these areas: Airports, Golf Courses, Habitat Restoration & Management Areas, Highways & Roadsides, Industrial Plant Sites, Lumberyards, Parking Areas, Parks, Petroleum Tank Farms, Pipeline, Power, Telephone & Utility, Rights-of-Way, Pumping Installations, Railroads, Schools, Storage Areas, Similar Sites

## MIXING AND APPLICATION INSTRUCTIONS

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

### MIXING

This product mixes readily with water. Mix spray solutions of this product as follows: fill the mixing or spray tank with the required amount of water while adding the required amount of this product (see "DIRECTIONS FOR USE" and "WEEDS CONTROLLED" sections of this label).

Near the end of the filling process, **add the required surfactant** and mix well. Remove hose from tank immediately after filling to avoid siphoning back into the water source. During mixing and application, foaming of the spray solution may occur. To prevent or minimize foam, avoid the use of mechanical agitators, place the filling hose below the surface of the spray solution, terminate by-pass and return lines at the bottom of the tank and if needed use an approved anti-foam or defoaming agent.

Keep by-pass line on or near bottom of tank to minimize foaming. Screen size in nozzle or line strainers should be no finer than 50 mesh. Carefully select correct nozzle to avoid spraying a fine mist. For best results with conventional ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

When using this product, mix 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution. Use a nonionic surfactant labeled for use with herbicides. The surfactant must contain 50 percent or more active ingredient.

Always read and follow the manufacturer's surfactant label recommendations for best results.

These surfactants should not be used in excess of 1 quart per acre when making broadcast applications.

Colorants or marking dyes approved for use with herbicides may be added to spray mixtures of this product. Colorants or dyes used in spray solutions of this product may reduce performance, especially at lower rates or dilutions. Use colorants or dyes according to the manufacturer's label recommendations. Clean sprayer and parts immediately after using this product by thoroughly flushing with water and dispose of rinsate according to labeled use or disposal instructions.

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

## APPLICATION EQUIPMENT AND TECHNIQUES

**AERIAL EQUIPMENT** - Use the recommended rates of this product and surfactant in 3 to 20 gallons of water per acre as a broadcast spray, unless otherwise specified. See the "WEEDS CONTROLLED" section of this label for specific rates. Aerial applications of this product may only be made as specifically recommended in this label.

**AVOID DRIFT** - Do not apply during inversion conditions, when winds are gusty or under any other condition which will allow drift. Drift may cause damage to any vegetation contacted to which treatment is not intended. To prevent injury to adjacent desirable vegetation, appropriate buffer zones must be maintained.

Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations which dispense spray as fine spray droplets. Do not angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle pressure above the manufacturer's recommendations. Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing in the additive label. Ensure uniform application - To avoid streaked, uneven or overlapped application, use appropriate marking devices. Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills. **PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR ARE MOST SUSCEPTIBLE.** The maintenance of an organic coating (paint) which meets aerospace specification MIL-C-38413 may prevent corrosion. For use of this product by air in California see additional instructions below.

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

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

1. The distance of the outer most operating nozzles on the boom must not exceed ¼ the length of the rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downward more than 45 degrees. Where states have more stringent regulations, they must be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

**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 Wind, Temperature and Humidity, and Temperature Inversions).

### Controlling Droplet Size -

**Volume:** Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

**Pressure:** Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. 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 air stream produces larger droplets than other orientations and is the recommended practice. Significant deflection from 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 the largest droplets and the lowest drift.

**Boom Length:** For some use patterns, reducing the effective boom length to less than ¾ 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 exposure of 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 drops, etc.).

**Wind** - Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

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

**Temperature Inversions** - Applications should not occur during a local, low level 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 the 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).

#### **FOR AERIAL APPLICATION IN CALIFORNIA ONLY**

Extreme care must be exercised to avoid contact of spray with foliage, green stems, or fruit of desirable crops, plants, trees, or other desirable vegetation since severe damage or destruction may result.

**AQUATIC AND OTHER NONCROP SITES** - When applied as directed and under the conditions described in the "WEEDS CONTROLLED" section of the label booklet for this product, this herbicide will control or partially control the labeled weeds growing in the following industrial, recreational and public areas, or other similar sites. Aquatic Sites - including all bodies of fresh and brackish water which may be flowing, nonflowing or transient. This includes lakes, rivers, streams, ponds, seeps, irrigation and drainage ditches, canals, reservoirs, estuaries and similar sites. If aquatic sites are present in the noncrop areas and are part of the intended treatment, read and observe the following directions: There is no limit on the use of treated water for irrigation, recreation or domestic purposes. Consult local state fish and game agency and water control authorities before applying this product to public water. Permits may be required to treat such water.

**NOTE:** Do not apply this product within ½ mile upstream of an active potable water intake in flowing water (i.e., river, stream, etc.) or within ½ mile of an active potable water intake in a standing body of water such as a lake, pond or reservoir. To make aquatic applications around and within ½ mile of active potable water intakes, the water intake must be turned off for a minimum period of 48 hours after the application. The water intake may be turned on prior to 48 hours if the glyphosate level in the intake water is below 0.7 parts per million as determined by laboratory analysis. These aquatic applications may be made ONLY in those cases where there are alternative water sources or holding ponds which would permit the turning off of an active potable water intake for a minimum period of 48 hours after application. This product does not control plants which are completely submerged or have a majority of their foliage underwater. **AVOID DRIFT** - do not apply when winds are gusty or under any other condition which will allow drift. Drift may cause damage to any vegetation contacted to which treatment is not intended. To prevent injury to adjacent desirable vegetation, appropriate buffer zones must be maintained.

Use the following guidelines when aerial applications are made near crops or desirable perennial vegetation after bud break and before total leaf drop, and/or near other desirable vegetation or annual crops.

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

#### **FOR AERIAL APPLICATION IN FRESNO COUNTY, CALIFORNIA ONLY**

From February 15 through March 31 only. For aerial application outside of these dates, refer to the "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" section printed above.

**APPLICABLE AREA** - This supplement only applies to the area contained inside the following boundaries within Fresno County, California only.

North: Fresno County line

South: Fresno County line

East: State Highway 99

West: Fresno County line

#### **GENERAL INFORMATION**

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

Written Recommendations

A written recommendation MUST be submitted by or on behalf of the applicator to the Fresno County Agricultural Commissioner 24 hours prior to the application. This written recommendation MUST state the proximity of surrounding crops, and that conditions of each manufacturer's applicable product label(s) and this label have been satisfied.

Aerial Applicator Training and Equipment

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

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

#### **BOOM EQUIPMENT**

For control of weed or brush species listed in this label using conventional boom equipment -

Use the recommended rates of this product and surfactant in 3 to 30 gallons of water per acre as a broadcast spray, unless otherwise specified. See the "WEEDS CONTROLLED" section of this label for specific rates. As density of vegetation increases, spray volume should be increased within the recommended range to ensure complete coverage. Carefully select correct nozzle to avoid spraying a fine mist. For best results with ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

#### **HAND-HELD and HIGH-VOLUME EQUIPMENT**

##### **Use Coarse Sprays Only**

For control of weeds listed in this label using knapsack sprayers or high-volume spraying equipment utilizing handguns or other suitable nozzle arrangements -

**Prepare a ¾ to 2 percent solution of this product in water, add a nonionic surfactant and apply to foliage of vegetation to be controlled. For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section in this label.**

Applications should be made on a spray-to-wet basis. Spray coverage should be uniform and complete. Do not spray to point of runoff.

This product may be used as a 5 to 8 percent solution for low-volume directed sprays for spot treatment of trees and brush. It is most effective in areas where there is a low density of undesirable trees or brush. If a straight stream nozzle is used, start the application at the top of the targeted vegetation and spray from top to bottom in a lateral zig-zag motion. Ensure that at least 50 percent of the leaves are contacted by the spray solution. For flat fan and cone nozzles and with hand-directed mist blowers, mist the application over the foliage of the targeted vegetation. Small, open-branched trees need only be treated from one side. If the foliage is thick or there are multiple root sprouts, applications must be made from several sides to ensure adequate spray coverage.

Prepare the desired volume of spray solution by mixing the amount of this product in water, shown in the following table (on the next page).

**WEEDS CONTROLLED**

**ANNUAL WEEDS**

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

**Broadcast Application** - Use 1½ pints of this product per acre plus 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution, if weeds are less than 6 inches tall. If weeds are greater than 6 inches tall, use 2½ pints of this product per acre plus 2 or more quarts of an approved nonionic surfactant per 100 gallons of spray solution.

**Hand-Held, High-Volume Application** - Use a ¾ percent solution of this product in water plus 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution and apply to foliage of vegetation to be controlled.

When applied as directed under the conditions described in this label, this product plus nonionic surfactant WILL CONTROL the following ANNUAL WEEDS:

Balsamapple\*\* *Momordica charantia*  
 Barley *Hordeum vulgare*  
 Barnyardgrass *Echinochloa crus-galli*  
 Bassia, fivehook *Bassia hyssopifolia*  
 Bluegrass, annual *Poa annua*  
 Bluegrass, bulbous *Poa bulbosa*  
 Brome *Bromus spp.*  
 Buttercup *Ranunculus spp.*  
 Cheat *Bromus secalinus*  
 Chickweed, mouseear *Cerastium vulgatum*  
 Cocklebur *Xanthium strumarium*  
 Corn, volunteer *Zea mays*  
 Crabgrass *Digitaria spp.*  
 Dwarfdandelion *Krigia cespitosa*  
 Falseflax, smallseed *Camelina microcarpa*  
 Fiddleneck *Amsinckia spp.*  
 Flaxleaf fleabane *Conyza bonariensis*  
 Fleabane *Erigeron spp.*  
 Foxtail *Setaria spp.*

Foxtail, Carolina *Alopecurus carolinianus*  
 Grousel, common *Senecio vulgaris*  
 Horseweed/Marestail *Conyza canadensis*  
 Kochia *Kochia scoparia*  
 Lambsquarters, common *Chenopodium album*  
 Lettuce, prickly *Lactuca serriola*  
 Morningglory *Ipomoea spp.*  
 Mustard, blue *Chorispora tenella*  
 Mustard, tansy *Descurainia pinnata*  
 Mustard, tumble *Sisymbrium altissimum*  
 Mustard, wild *Sinapis arvensis*  
 Oats, wild *Avena fatua*  
 Panicum *Panicum spp.*  
 Pennycress, field *Thlaspi arvense*  
 Pigweed, redroot *Amaranthus retroflexus*  
 Mustard, smooth *Amaranthus hybridus*  
 Ragweed, common *Ambrosia artemisiifolia*  
 Ragweed, giant *Ambrosia trifida*  
 Rocket, London *Sisymbrium irio*

**SPRAY SOLUTION**

AMOUNT OF SHORE-KLEAR AQUATIC HERBICIDE						
DESIRED VOLUME	¾%	1%	1¼%	1½%	5%	8%
1 gallon	1 oz.	1½ oz.	1¾ oz.	2 oz.	6 oz.	10¼ oz.
25 gallons	1½ pt.	1 qt.	1¼ qt.	1½ qt.	5 qt.	2 gal.
100 gallons	3 qt.	1 gal.	1¼ gal.	1½ gal.	5 gal.	8 gal.

2 tablespoons = 1 fluid ounce

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

Rye *Secale cereale*  
 Ryegrass, Italian\* *Lolium multiflorum*  
 Sandbur, field *Cenchrus spp.*  
 Shattercane *Sorghum bicolor*  
 Shepherd's-purse *Capsella bursa-pastoris*  
 Signalgrass, broadleaf *Brachiaria platyphylla*  
 Smartweed, Pennsylvania *Polygonum pensylvanicum*  
 Sowthistle, annual *Sonchus oleraceus*  
 Spanishneedles\* *Bidens bipinnata*  
 Spurry, umbrella *Holosteum umbellatum*  
 Stinkgrass *Eragrostis ciliaris*  
 Sunflower *Helianthus annuus*  
 Thistle, Russian *Salsola kali*  
 Velvetleaf *Abutilon theophrasti*  
 Wheat *Triticum aestivum*  
 Witchgrass *Panicum capillare*

\*Apply 3 pints of this product per acre.  
 \*\*Apply with hand-held equipment only.

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

**PERENNIAL WEEDS**

Apply this product as follows to control or destroy most vigorously growing perennial weeds. Unless otherwise directed, allow at least 7 days after application before disturbing vegetation.

Add 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution to the rates of this product given in this list. See the "GENERAL INFORMATION", "DIRECTIONS FOR USE" and "MIXING AND APPLICATION" sections in this label for specific uses and application instructions.

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

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

When applied as recommended under the conditions described, this product plus surfactant WILL CONTROL the following PERENNIAL WEEDS:

Alfalfa *Medicago sativa*  
 Alligatorweed\* *Alternanthera philoxeroides*  
 Anise/Fennel *Foeniculum vulgare*  
 Artichoke, Jerusalem *Helianthus tuberosus*  
 Bahiagrass *Paspalum notatum*  
 Bermudagrass *Cynodon dactylon*  
 Bindweed, field *Convolvulus arvensis*  
 Bluegrass, Kentucky *Poa pratensis*  
 Blueweed, Texas *Helianthus ciliaris*  
 Brackenfern *Pteridium spp.*  
 Bromegrass, smooth *Bromus inermis*  
 Canarygrass, reed *Phalaris arundinacea*  
 Cattail *Typha spp.*  
 Clover, red *Trifolium pratense*  
 Clover, white *Trifolium repens*  
 Cogongrass *Imperata cylindrica*  
 Cordgrass *Spartina spp.*  
 Cutgrass, giant\* *Zizaniopsis miliacea*  
 Dallisgrass *Paspalum dilatatum*  
 Dandelion *Taraxacum officinale*  
 Dock, curly *Rumex crispus*  
 Dogbane, hemp *Apocynum cannabinum*  
 Fescue *Festuca spp.*  
 Fescue, tall *Festuca arundinacea*

Guineagrass *Panicum maximum*  
 Hemlock, poison *Conium maculatum*  
 Horsenettle *Solanum carolinense*  
 Horseradish *Armoracia rusticana*  
 Ice Plant *Mesembryanthemum crystallinum*  
 Johnsongrass *Sorghum halepense*  
 Kikuyugrass *Pennisetum clandestinum*  
 Knapweed *Centaurea repens*  
 Lantana *Lantana camara*  
 Lespedeza: common, serices  
 Lespedeza *striata*  
 Lespedeza *cuneata*  
 Loosestrife, purple *Lythrum salicaria*  
 Lotus, American *Nelumbo lutea*  
 Maidencane *Panicum hematomon*  
 Milkweed *Asclepias spp.*  
 Muhly, wirestem *Muhlenbergia frondosa*  
 Mullein, common *Verbascum thapsus*  
 Napiergrass *Pennisetum purpureum*  
 Nightshade, silverleaf *Solanum elaeagnifolium*  
 Nutsedge: purple, yellow  
*Cyperus rotundus*  
*Cyperus esculentus*

Orchardgrass *Dactylis glomerata*  
 Pampasgrass *Cortaderia jubata*  
 Paragrass *Brachiaria mutica*  
 Phragmites\*\* *Phragmites spp.*  
 Quackgrass *Agropyron repens*  
 Reed, giant *Arundo donax*  
 Ryegrass, perennial *Lolium perenne*  
 Smartweed, swamp *Polygonum coccineum*  
 Spatterdock *Nuphar luteum*  
 Starthistle, yellow *Centaurea solstitialis*  
 Sweet potato, wild\* *Ipomoea pandurata*  
 Thistle, artichoke *Cynara cardunculus*  
 Thistle, Canada *Cirsium arvense*  
 Timothy *Phleum pratense*  
 Torpedograss\* *Panicum repens*  
 Tules, common *Scirpus acutus*  
 Vaseygrass *Paspalum urvillei*  
 Velvetgrass *Holcus spp.*  
 Waterhyacinth *Eichornia crassipes*  
 Waterlettuce *Pistia stratiotes*  
 Waterprimrose *Ludwigia spp.*  
 Wheatgrass, western *Agropyron smithii*

\*Partial control.

\*\*Partial control in southeastern states. See specific recommendations below.

**Alligatorweed** - Apply 6 pints of this product per acre as a broadcast spray or as a 1¼ percent solution with hand-held equipment to provide partial control of alligatorweed. Apply when most of the target plants are in bloom. Repeat applications will be required to maintain such control.

**Bermudagrass** - Apply 7½ pints of this product per acre as a broadcast spray or as a 1½ percent solution with hand-held equipment. Apply when target plants are actively growing and when seedheads appear.

**Bindweed, field/Silverleaf Nightshade/Texas Blueweed** - Apply 6 to 7½ pints of this product per acre as a broadcast spray west of the Mississippi River and 4½ to 6 pints of this product per acre east of the Mississippi River. With hand-held equipment, use a 1½ percent solution. Apply when target plants are actively growing and are at or beyond full bloom. For silverleaf nightshade, best results can be obtained when application is made after berries are formed. Do not treat when weeds are under drought stress. New leaf development indicates active growth. For best results apply in late summer or fall.

**Brackenfern** - Apply 4½ to 6 pints of this product per acre as a broadcast spray or as a ¾ to 1 percent solution with hand-held equipment. Apply to fully

expanded fronds which are at least 18 inches long.

**Cattail** - Apply 4½ to 6 pints of this product per acre as a broadcast spray or as a ¾ percent solution with hand-held equipment. Apply when target plants are actively growing and are at or beyond the early-to-full bloom stage of growth. Best results are achieved when application is made during the summer or fall months.

**Cogongrass** - Apply 4½ to 7½ pints of this product per acre as a broadcast spray. Apply when cogongrass is at least 18 inches tall and actively growing in late summer or fall. Allow 7 or more days after application before tillage or mowing. Due to uneven stages of growth and the dense nature of vegetation preventing good spray coverage, repeat treatments may be necessary to maintain control.

**Cordgrass** - Apply 4½ to 7½ pints of this product per acre as a broadcast spray or as a 1 to 2 percent solution with hand-held equipment. Schedule applications in order to allow 6 hours before treated plants are covered by tidewater. The presence of debris and silt on the cordgrass plants will reduce performance. It may be necessary to wash targeted plants prior to application to improve uptake of this product into the plant.

**Cutgrass, giant** - Apply 6 pints of this product per acre as a broadcast spray or as a 1 percent solution with hand-held equipment to provide partial control of giant cutgrass. Repeat applications will be required to maintain such control, especially where vegetation is partially submerged in water. Allow for substantial regrowth to the 7- to 10-leaf stage prior to retreatment.

**Dogbane, hemp/Knapweed/Horseradish** - Apply 6 pints of this product per acre as a broadcast spray or as a 1½ percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached the late bud-to-flower stage of growth. For best results, apply in late summer or fall.

**Fescue, tall** - Apply 4½ pints of this product per acre as a broadcast spray or as a 1 percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached the boot-to-head stage of growth. When applied prior to the boot stage, less desirable control may be obtained.

**Guineagrass** - Apply 4½ pints of this product per acre as a broadcast spray or as a ¾ percent solution with hand-held equipment. Apply when target plants are actively growing and when most have reached at least the 7-leaf stage of growth.

**Johnsongrass/Bluegrass, Kentucky/Bromegrass, smooth/Canarygrass, reed/Orchardgrass/Ryegrass, perennial/Timothy/ Wheatgrass, western** - Apply 3 to 4½ pints of this product per acre as a broadcast spray or as a ¾ percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached the boot-to-head stage of growth. When applied prior to the boot stage, less desirable control may be obtained. In the fall, apply before plants have turned brown.

**Lantana** - Apply this product as a ¾ to 1 percent solution with hand-held equipment. Apply to actively growing Lantana at or beyond the bloom stage of growth. Use the higher application rate for plants that have reached the woody stage of growth.

**Loosestrife, purple** - Apply 4 pints of this product per acre as a broadcast spray or as a 1 to 1½ percent solution using hand-held equipment. Treat when plants are actively growing at or beyond the bloom stage of growth. Best results are achieved when application is made during summer or fall months. Fall treatments must be applied before a killing frost.

**Lotus, American** - Apply 4 pints of this product per acre as a broadcast spray or as a ¾ percent solution with hand-held equipment. Treat when plants are actively growing at or beyond the bloom stage of growth. Best results are achieved when application is made during summer or fall months. Fall treatments must be applied before a killing frost. Repeat treatment may be necessary to control regrowth from underground parts and seeds.

**Maidencane/Paragrass** - Apply 6 pints of this product per acre as a broadcast spray or as a ¾ percent solution with hand-held equipment. Repeat treatments will be required, especially to vegetation partially submerged in water. Under these conditions, allow for regrowth to the 7- to 10-leaf stage prior to retreatment.

**Milkweed, common** - Apply 4½ pints of this product per acre as a broadcast spray or as a 1½ percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached the late bud-to-flower stage of growth.

**Nutsedge: purple, yellow** - Apply 4½ pints of this product per acre as a broadcast spray, or as a ¾ percent solution with hand-held equipment to control existing nutsedge plants and immature nutlets attached to treated plants. Apply when target plants are in flower or when new nutlets can be found at rhizome tips. Nutlets which have not germinated will not be controlled and may germinate following treatment. Repeat treatments will be required for long-term control.

**Pampasgrass** - Apply a 1½ percent solution of this product with hand-held equipment when plants are actively growing.

**Phragmites** - For partial control of phragmites in Florida and the counties of other states bordering the Gulf of Mexico, apply 7½ pints per acre as a broadcast spray or apply a 1½ percent solution with hand-held equipment. In other areas of the U.S., apply 4 to 6 pints per acre as a broadcast spray or apply a ¾ percent solution with hand-held equipment for partial control. For best results, treat during late summer or fall months when plants are actively growing and in full bloom. Due to the dense nature of the vegetation, which may prevent good spray coverage and uneven stages of growth, repeat treatments may be necessary to maintain control. Visual control symptoms will be slow to develop.

**Quackgrass/Kikuyugrass/Muhly, wirestem** - Apply 3 to 4½ pints of this product per acre as a broadcast spray or as a ¾ percent solution with hand-held equipment when most quackgrass or wirestem muhly is at least 8 inches in height (3- to 4-leaf stage of growth) and actively growing. Allow 3 or more days after application before tillage.

**Reed, giant/ice plant** - For control of giant reed and ice plant, apply a 1½ percent solution of this product with hand-held equipment when plants are actively growing. For giant reed, best results are obtained when applications are made in late summer to fall.

**Spatterdock** - Apply 6 pints of this product per acre as a broadcast spray or as a ¾ percent solution with hand-held equipment. Apply when most plants are in full bloom. For best results, apply during the summer or fall months.

**Sweet potato, wild** - Apply this product as a 1½ percent solution using hand-held equipment. Apply to actively growing weeds that are at or beyond the bloom stage of growth. Repeat applications will be required. Allow the plant to reach the recommended stage of growth before retreatment.

**Thistle: Canada, artichoke** - Apply 3 to 4½ pints of this product per acre as a broadcast spray or as a 1½ percent solution with hand-held equipment for Canada thistle. To control artichoke thistle, apply a 2 percent solution as a spray to wet application. Apply when target plants are actively growing and are at or beyond the bud stage of growth.

**Torpedograss** - Apply 6 to 7½ pints of this product per acre as a broadcast spray or as a ¾ to 1½ percent solution with hand-held equipment to provide partial control of torpedograss. Use the lower rates under terrestrial conditions, and the higher rates under partially submerged or a floating mat condition. Repeat treatments will be required to maintain such control.

**Tules, common** - Apply this product as a 1½ percent solution with hand-held equipment. Apply to actively growing plants at or beyond the seedhead stage of growth. After application, visual symptoms will be slow to appear and may not occur for 3 or more weeks.

**Waterhyacinth** - Apply 5 to 6 pints of this product per acre as a broadcast spray or apply a ¾ to 1 percent solution with hand-held equipment. Apply when target plants are actively growing and at or beyond the early bloom stage of growth. After application, visual symptoms may require 3 or more weeks to appear with complete necrosis and decomposition usually occurring within 60 to 90 days. Use the higher rates when more rapid visual effects are desired.

**Waterlettuce** - For control, apply a ¾ to 1 percent solution using hand-held equipment to actively growing plants. Use higher rates where infestations are heavy. Best results are obtained from mid-summer through winter applications. Spring applications may require retreatment.

**Waterprimrose** - Apply this product as a ¾ percent solution using hand-held equipment. Apply to plants that are actively growing at or beyond the bloom stage of growth, but before fall color changes occur. Thorough coverage is necessary for best control.

**Other perennials listed on this label** - Apply 4½ to 7½ pints of this product per acre as a broadcast spray or as a ¾ to 1½ percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached early head or early bud stage of growth.

## WOODY BRUSH AND TREES

When applied as recommended under the conditions described, this product plus surfactant CONTROLS or PARTIALLY CONTROLS the following woody brush plants and trees:

Alder *Alnus spp.*  
Ash\* *Fraxinus spp.*  
Aspen, quaking *Populus tremuloides*  
Bearclover, Bearmat *Chamaebatia foliolosa*  
Birch *Betula spp.*  
Blackberry *Rubus spp.*  
Broom:  
French *Cytisus monspessulanus*  
Scotch *Cytisus scoparius*  
Buckwheat, California\* *Eriogonum fasciculatum*  
Cascares\* *Rhamnus purshiana*  
Catsclaw\* *Acacia greggi*  
Ceanothus *Ceanothus spp.*  
Chamise *Adenostoma fasciculatum*  
Cherry:  
Bitter *Prunus emarginata*  
Black *Prunus serotina*  
Pin *Prunus pensylvanica*  
Coyote brush *Baccharis consanguinea*  
Creeper, Virginia\* *Parthenocissus quinquefolia*  
Dewberry *Rubus trivialis*  
Dogwood *Cornus spp.*  
Elderberry *Sambucus spp.*  
Elm\* *Ulmus spp.*  
Eucalyptus, bluegum *Eucalyptus globules*  
Hasardia\* *Haplopappus squamosus*  
Hawthorn *Crataegus spp.*  
Hazel *Corylus spp.*  
Hickory *Carya spp.*  
Holly, Florida; Brazilian Peppertree  
*Schinus terebinthifolius*  
Honeysuckle *Lonicera spp.*  
Hornbeam, American *Carpinus caroliniana*  
Kudzu *Pueraria lobata*  
Locust, black\* *Robinia pseudoacacia*  
Manzanita *Arctostaphylos spp.*  
Maple:  
Red\*\* *Acer rubrum*  
Sugar *Acer saccharum*  
Vine\* *Acer circinatum*  
Monkey Flower\* *Mimulus guttatus*  
Oak:  
Black\* *Quercus velutina*  
Northern pine *Quercus palustris*  
Post *Quercus stellata*  
Red *Quercus rubra*  
Southern red *Quercus falcata*  
White\* *Quercus alba*  
Persimmon\* *Diospyros spp.*  
Poison Ivy *Rhus radicans*  
Poison Oak *Rhus toxicodendron*  
Poplar, yellow\* *Liriodendron tulipifera*  
Prunus *Prunus spp.*  
Raspberry *Rubus spp.*  
Redbud, eastern *Cercis canadensis*  
Rose, multiflora *Rosa multiflora*  
Russian-olive *Elaeagnus angustifolia*  
Sage: black, white *Salvia spp.*  
Sagebrush, California *Artemisia californica*  
Salmonberry *Rubus spectabilis*  
Salt cedar\* *Tamarix spp.*  
Saltbush, Sea myrtle *Baccharis halimifolia*  
Sassafras *Sassafras albidum*  
Sourwood\* *Oxendrum arboreum*  
Sumac:  
Poison\* *Rhus vernix*  
Smooth\* *Rhus glabra*  
Winged\* *Rhus copallina*  
Sweet gum *Liquidambar styraciflua*  
Swordfern\* *Polystichum munitum*  
Tallowtree, Chinese *Sapium sebiferum*  
Thimbleberry *Rubus parviflorus*  
Tobacco, tree\* *Nicotiana glauca*  
Trumpet creeper *Campsis radicans*  
Waxmyrtle, southern\* *Myrica cerifera*  
Willow *Salix spp.*

\*Partial control

\*\*See below for control or partial control instruction.

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

Apply the recommended rate of this product plus 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution when plants are actively growing and, unless otherwise directed, after full-leaf expansion. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation. In arid areas, best results are obtained when application is made in the spring or early summer when brush species are at high moisture content and are flowering. Ensure thorough coverage when using hand-held equipment. Symptoms may not appear prior to frost or senescence with fall treatments. Allow 7 or more days after application before tillage, mowing or removal. Repeat treatments may be necessary to control plants regenerating from underground parts or seed. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Reduced performance may result if fall treatments are made following a frost.

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

Applied as a 5- to 8-percent solution as a directed application as described in the "HAND-HELD AND HIGH-VOLUME EQUIPMENT" section, this product will control or partially control all species listed in this section of this label. Use the higher rate of application for dense stands and larger woody brush and trees.

Apply the product as follows to control or partially control the following woody brush and trees.

**Alder/Blackberry/Dewberry/Honeysuckle/Oak, Post/Raspberry** - For control, apply 4½ to 6 pints per acre as a broadcast spray or as a ¾ to 1¼ percent solution with hand-held equipment.

**Aspen, Quaking/Hawthorn/Trumpet creeper** - For control, apply 3 to 4¼ pints of this product per acre as a broadcast spray or as a ¾ to 1¼ percent solution with hand-held equipment.

**Birch/Elderberry/Hazel/Salmonberry/Thimbleberry** - For control, apply 3 pints per acre of this product as a broadcast spray or as a ¾ percent solution with hand-held equipment.

**Broom: French, Scotch** - For control, apply a 1¼ to 1½ percent solution with hand-held equipment.

**Buckwheat, California/Hasardia/Monkey Flower/Tobacco, Tree** - For partial control of these species apply a ¾ to 1½ percent solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

**Catsclaw** - For partial control, apply a 1¼ to 1½ percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

**Cherry: Bitter, Black, Pin/Oak, Southern Red/Sweet Gum/Prunus** - For control, apply 3 to 7½ pints of this product per acre as a broadcast spray or as a 1 to 1½ percent solution with hand-held equipment.

**Coyote brush** - For control, apply a 1¼ to 1½ percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

**Dogwood/Hickory/Salt cedar** - For partial control, apply a 1 to 2 percent solution of this product with hand-held equipment or 6 to 7½ pints per acre as a broadcast spray.

**Eucalyptus, bluegum** - For control of eucalyptus resprouts, apply a 1½ percent solution of this product with hand-held equipment when resprouts are 6- to 12-feet tall. Ensure complete coverage. Apply when plants are actively growing. Avoid application to drought-stressed plants.

**Holly, Florida/Waxmyrtle, southern** - For partial control, apply this product as a 1½ percent solution with hand-held equipment.

**Kudzu** - For control, apply 6 pints of this product per acre as a broadcast spray or as a 1½ percent solution with hand-held equipment. Repeat applications will be required to maintain control.

**Maple, Red** - For control, apply as a ¾ to 1¼ percent solution with hand-held equipment when leaves are fully developed. For partial control, apply 2 to 7½ pints of this product per acre as a broadcast spray.

**Maple, Sugar/Oak: Northern Pine, Red** - For control, apply as a ¾ to 1¼ percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

**Poison Ivy/Poison Oak** - For control, apply 6 to 7½ pints of this product per acre as a broadcast spray or as a 1½ percent solution with hand-held equipment. Repeat applications may be required to maintain control. Fall treatments must be applied before leaves lose green color.

**Rose, multiflora** - For control, apply 3 pints of this product per acre as a broadcast spray or as a 1½ percent solution with hand-held equipment. Treatments should be made prior to leaf deterioration by leaf-feeding insects.

**Sage, black/Sagebrush, California/Chamise/Tallowtree, Chinese** - For control of these species, apply a ¾ percent solution with hand-held equipment. Thorough coverage of foliage is necessary for best results.

**Saltbush, Sea myrtle** - For control, apply this product as a 1 percent solution with hand-held equipment.

**Willow** - For control, apply 4½ pints of this product per acre as a broadcast spray or as a ¾ percent solution with hand-held equipment.

**Other woody brush and trees listed in this label** - For partial control, apply 3 to 7½ pints of this product per acre as a broadcast spray or as a ¾ to 1½ percent solution with hand-held equipment.

**WILDLIFE HABITAT RESTORATION AND MANAGEMENT AREAS** - This product is recommended for the restoration and/or maintenance of native habitat and in wildlife management areas. Habitat Restoration and Maintenance - When applied as directed, exotic and other undesirable vegetation may be controlled in habitat management areas. Applications may be made to allow recovery of native plant species, to open up water to attract waterfowl, and for similar broad-spectrum vegetation control requirements in habitat management areas. Spot treatments may be made to selectively remove unwanted plants for habitat enhancement. For spot treatments, care should be exercised to keep spray off of desirable plants. Wildlife Food Plots - This product may be used as site preparation treatment prior to planting wildlife food plots. Apply as directed to control vegetation in the plot area. Any wildlife food species may be planted after applying this product, or native species may be allowed to reinfest the area. If tillage is needed to prepare a seedbed, wait 7 days after applying this product before tilling to allow for maximum effectiveness.

**WIPER APPLICATIONS** - For wick or wiper applications, mix 1 gallon of this product with 2 gallons of clean water to make a 33-percent solution. Addition of a nonionic surfactant at a rate of 10 percent by volume of total herbicide solution is recommended. Wiper applications can be used to control or suppress annual and perennial weeds listed on this label. In heavy weed stand, a double application in opposite directions may improve results. See the "WEEDS CONTROLLED" section in this label for recommended timing, growth stage and other instructions for achieving optimum results.

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

Alder <i>Alnus spp.</i>	Madrone <i>Arbutus menziesii</i>	Salt Cedar <i>Tamarix spp.</i>
Coyote brush* <i>Baccharis consanguinea</i>	Maple* <i>Acer spp.</i>	Sweet gum <i>Liquidambar styraciflua</i>
Dogwood* <i>Cornus spp.</i>	Oak <i>Quercus spp.</i>	Sycamore <i>Platanus occidentalis</i>
Eucalyptus <i>Eucalyptus</i>	Poplar <i>Populus spp.</i>	
Hickory* <i>Carya spp.</i>	Reed, giant <i>Arundo donax</i>	

\*This product is not approved for this use on these species in the State of California.

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

This treatment WILL CONTROL the following woody species:

- Oak *Quercus spp.*
- Sweet gum *Liquidambar styraciflua*
- Poplar *Populus spp.*
- Sycamore *Platanus occidentalis*

This treatment WILL SUPPRESS the following woody species:

- Black gum\* *Nyssa sylvatica*
- Hickory *Carya spp.*
- Dogwood *Cornus spp.*
- Maple, red *Acer rubrum*

\*This product is not approved for this use on this species in the state of California.

**INJECTION METHOD FOR CONTROL OF JAPANESE KNOTWEED (*Polygonum cuspidatum*) & GIANT KNOTWEED (*Polygonum polystachyum*)**

**DIRECTIONS FOR USE**- It is a violation of Federal law to use this product in any manner inconsistent with its labeling. This label must be in the possession of the user at the time of application. All applicable directions and precautions in the Shore-Klear Herbicide label booklet must be followed. See the "GENERAL INFORMATION" and "MIXING AND APPLICATION INSTRUCTIONS" sections of this product's label booklet for essential product performance information. This product may be used for control of Japanese knotweed and giant knotweed using individual stem treatment. Individual knotweed stems may be treated by injecting up to 5 mL of undiluted this product directly into the hollow stem just below a node. A hole suitable for injecting the herbicide should be made through both sides of the stem using an awl or other convenient pointed tool about 6 inches above the ground, just below a node. (Nodes are circular thickenings or scars surrounding the stem where leaves are or were previously attached.) The herbicide is then injected into this hole. Each stem of the knotweed plant must be treated. This product can be injected using any injection device capable of delivering a 5 mL dose. For convenience and accuracy, a hand-operated injection device designed to deliver repeated pre-measured doses from a supply reservoir is recommended. Commercially available dose measuring equipment may be adapted for this purpose. Calibrate the device to deliver a dose of 5 mL per injection cycle. A sharpened hollow probe for puncturing the stem and delivery of the herbicide can also be integrated into the delivery system. Restriction: Do not apply more than 7.5 quarts of this product per acre. At 5 mL per stem, 7.5 quarts is sufficient to treat a maximum of 1,420 stems per acre.

**RELEASE OF BERMUDAGRASS OR BAHAGRASS ON NONCROP SITES**  
**RELEASE OF DORMANT BERMUDAGRASS AND BAHAGRASS**

When applied as directed, this product will provide control or suppression of many winter annual weeds and tall fescue for effective release of dormant bermudagrass or bahiagrass. Make applications to dormant bermudagrass or bahiagrass. For best results on winter annuals, treat when weeds are in an early growth stage (below 6 inches in height) after most have germinated. For best results on tall fescue, treat when fescue is in or beyond the 4- to 6-leaf stage.

**WEEDS CONTROLLED** - Rate recommendations for control or suppression of winter annuals and tall fescue are listed in the table to the right. Apply the recommended rates of this product in 10 to 25 gallons of water per acre, plus 2 quarts nonionic surfactant per 100 gallons of total spray volume.

**WEEDS CONTROLLED OR SUPPRESSED\*  
 SHORE-KLEAR AQUATIC HERBICIDE (FLUID OZ/ACRE)**

WEED SPECIES	6	9	12	18	24	48
Barley, little <i>Hordeum pusillum</i>	S	C	C	C	C	C
Bedstraw, catchweed <i>Galium aparine</i>	S	C	C	C	C	C
Bluegrass, annual <i>Poa annua</i>	S	C	C	C	C	C
Chervil <i>Chaerophyllum tainturieri</i>	S	C	C	C	C	C
Chickweed, common <i>Stellaria media</i>	S	C	C	C	C	C
Clover, crimson <i>Trifolium incarnatum</i>	•	S	S	C	C	C
Clover, large hop <i>Trifolium campestre</i>	•	S	S	C	C	C
Speedwell, corn <i>Veronica arvensis</i>	S	C	C	C	C	C
Fescue, tall <i>Festuca arundinacea</i>	•	•	•	•	S	S
Geranium, Carolina <i>Geranium carolinianum</i>	•	•	S	S	C	C
Henbit <i>Lamium amplexicaule</i>	•	S	C	C	C	C
Ryegrass, Italian <i>Oxium multiflorum</i>	•	•	S	C	C	C
Vetch, common <i>Vicia sativa</i>	•	•	S	C	C	C

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

NOTE: C = Control S = Suppression

**RELEASE OF ACTIVELY GROWING BERMUDAGRASS**

NOTE: USE ONLY ON SITES WHERE BAHAGRASS OR BERMUDAGRASS ARE DESIRED FOR GROUND COVER AND SOME TEMPORARY INJURY OR YELLOWING OF THE GRASSES CAN BE TOLERATED. When applied as directed, this product will aid in the release of bermudagrass by providing control of annual species listed in the "WEEDS CONTROLLED" section in this label, and suppression or partial control of certain perennial weeds. For control or suppression of those annual species listed in this label, use ¾ to 2¼ pints of this product as a broadcast spray in 10 to 25 gallons of spray solution per acre, plus 2 quarts of a nonionic surfactant per 100 gallons of total spray volume. Use the lower rate when treating annual weeds below 6 inches in height (or length of runner in annual vines). Use the higher rate as size of plants increases or as they approach flower or seedhead formation. Use the higher rate for partial control or longer-term suppression of the following perennial species. Use lower rates for shorter-term suppression of growth.

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

\*Suppression at the higher rate only.

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

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

## **BAHIAGRASS SEEDHEAD AND VEGETATIVE SUPPRESSION**

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

Apply this product 1 to 2 weeks after full green-up of bahiagrass or after the bahiagrass has been mowed to a uniform height of 3 to 4 inches. Applications must be made prior to seedhead emergence. Apply 5 fluid ounces per acre of this product, plus 2 quarts of an approved nonionic surfactant per 100 gallons of total spray volume in 10 to 25 gallons of water per acre.

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

Apply no more than 2 sequential applications per year. As a first sequential application, apply 3 fluid ounces of this product per acre plus nonionic surfactant. A second sequential application of 2 to 3 fluid ounces per acre plus nonionic surfactant may be made approximately 45 days after the last application.

## **ANNUAL GRASS GROWTH SUPPRESSION**

For growth suppression of some annual grasses, such as annual ryegrass, wild barley and wild oats growing in coarse turf on roadsides or other industrial areas, apply 3 to 4 ounces of this product in 10 to 40 gallons of spray solution per acre. Mix 2 quarts of a nonionic surfactant per 100 gallons of spray solution. Applications should be made when annual grasses are actively growing and before the seedheads are in the boot stage of development. Treatments made after seedhead emergence may cause injury to the desired grasses.

Keep Out of Reach of Children

**CAUTION/PRECAUCIÓN**

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 Precautionary Statements and Directions for Use on Back Booklet

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300

## **PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

### **CAUTION/PRECAUCIÓN**

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

### **FIRST AID**

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

**HOT LINE NUMBER:** Have the product container or label with you when calling a poison control center or doctor, or going for treatment. If a medical emergency arises contact Arch Chemicals Emergency Action Network in the US call 1-800-654-6911 or outside the US call 423-780-2970. For help with a spill, leak, fire or exposure involving this material call CHEMTREC 1-800-424-9300.

### **ENVIRONMENTAL HAZARDS**

Do not contaminate water when disposing of equipment washwaters. Treatment of aquatic weeds can result in oxygen depletion or loss due to decomposition of dead plants. This oxygen loss can cause fish suffocation. In case of, SPILL OR LEAK, soak up and remove to a landfill.

### **PHYSICAL OR CHEMICAL HAZARDS**

Spray solutions of this product should be mixed, stored and applied using only stainless steel, aluminum, fiberglass, plastic and plastic-lined steel containers.

**DO NOT MIX, STORE OR APPLY THIS PRODUCT IN GALVANIZED STEEL OR UNLINED 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, lighted cigarette or other ignition source.

### **STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:** Do not store below 32°F or above 100°F. Store in original container in a well-ventilated area separately from fertilizer, feed, and food stuffs. Avoid cross-contamination with other pesticides.

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Wastes resulting from this product may be disposed of on site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mix, or rinsate is a violation of federal law. If these wastes cannot be disposed of according to label instructions, contact the state agency responsible for pesticide regulation or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL - Nonrefillable container.** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke.

### **WARRANTY DISCLAIMER**

The directions for use of this product must be followed carefully. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, (1) THE GOODS DELIVERED TO YOU ARE FURNISHED "AS IS" BY MANUFACTURER OR SELLER AND (2) MANUFACTURER AND SELLER MAKE NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND TO BUYER OR USER, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE, OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE. UNINTENDED CONSEQUENCES, INCLUDING BUT NOT LIMITED TO INEFFECTIVENESS, MAY RESULT BECAUSE OF SUCH FACTORS AS THE PRESENCE OR ABSENCE OF OTHER MATERIALS USED IN COMBINATION WITH THE GOODS, OR THE MANNER OF USE OR APPLICATION, INCLUDING WEATHER, ALL OF WHICH ARE BEYOND THE CONTROL OF MANUFACTURER OR SELLER AND ASSUMED BY BUYER OR USER. THIS WRITING CONTAINS ALL OF THE REPRESENTATIONS AND AGREEMENTS BETWEEN BUYER, MANUFACTURER AND SELLER, AND NO PERSON OR AGENT OF MANUFACTURER OR SELLER HAS ANY AUTHORITY TO MAKE ANY REPRESENTATION OR WARRANTY OR AGREEMENT RELATING IN ANY WAY TO THESE GOODS.

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BUYER'S PURCHASE OF THIS PRODUCT SHALL CONSTITUTE AN AFFIRMATION BY BUYER THAT THE AFOREMENTIONED ITEMS SET FORTH HEREIN GOVERN THE PURCHASE AND SALE OF THIS PRODUCT.