

# SHOREKLEAR-PLUS®

## AQUATIC HERBICIDE

### GENERAL INFORMATION

This product is a nonselective herbicide that is diluted and applied to the foliage of actively growing weeds as a spot or broadcast application. It is absorbed by the leaves and moves throughout the stem and roots to control the entire plant. Visible symptoms may require a week or more to appear, with burndown usually occurring in 2 to 4 weeks. Symptoms are a gradual wilting and yellowing of the sprayed plant followed by deterioration of both shoots and roots. This product has no herbicidal activity in the soil and will not wash or leach to affect nearby vegetation.

### AQUATIC AND NONCROP SITES:

**Aquatic sites and wetlands:** This product may be applied to emerged weeds, woody brush and trees 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 including the following: **Aquatic food crop:** Agricultural drainage systems, irrigation systems, lakes/ponds/reservoirs (with human or wildlife use) stream/rivers/channeled water, drainage ditches, canals, irrigation ditches, estuaries. **Aquatic non-food industrial:** aquatic areas/water, drainage systems, waste water systems. **Aquatic non-food outdoor:** aquatic areas/water, ditches, ditch banks. This product may be used in and around water and wetlands found near power, telephone and pipeline rights-of-way sites, including where these sites are adjacent to or surrounding domestic water supply reservoirs, supply streams, lakes and ponds.

If aquatic sites are present in the non-crop area and are part of the intended treatment, read and observe the following directions: **This product does not control plants, which are completely submerged or have a majority of 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 local public water control authorities before applying this product in and around public waters. Permits may be required to treat in such areas.

**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 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 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 retreat within 24 hours following the initial treatment. Applications made to moving bodies of water must be made while traveling upstream to prevent concentration of this herbicide in 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 3.3 gallons of product 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.**

### NONCROPLAND SITES AND AQUATIC SITES WITHIN NONCROPLAND SITES:

This product may also be used to control the listed weeds, woody brush, and trees in terrestrial non-crop sites and/or in aquatic sites associated with these areas:

**Terrestrial Non-Food Crop:** ornamental and/or shade trees, ornamental woody shrubs and vines, ornamental plants, agricultural rights-of-way/fencerows/hedgerows, agricultural uncultivated areas, airports/landing fields, golf course turf, industrial areas, outdoor buildings/structures, rights-of-way/fence rows/hedgerows, nonagricultural uncultivated areas/soils, ornamental and/or shade trees, cemeteries, vacant lots, paved areas (private roads/sidewalks), recreational areas, urban areas, golf courses, parks, schools, rights-of-way (high-way, power lines, pipeline utility, railroads), roadsides, industrial sites, storage yards, lumber yards, petroleum tank farms, petroleum pumping stations, parking areas, shelter belts, farm yards, wildlife habitat restoration and management areas.

**Outdoor Residential:** ornamental and/or shade trees, ornamental herbaceous plants, ornamental woody shrubs and vines, household/domestic dwellings outdoor premises.

This product may be used as a broadcast treatment or spot treatment with any of the application equipment listed on this label in noncropland sites.

- **For spot treatments: Specific use recommendations for annuals, perennials, woody brush, and trees are presented in the booklet section named WEEDS CONTROLLED. See Tables 3 and 4.**
- **For broadcast treatments: Specific use recommendations for noncropland sites including dosage rates, spray volumes, and restrictions are presented in Table 5.**
- 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 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 types that will result in splatter or fine particles (mist) which are likely to drift.

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

E.P.A. Reg. No. 228-367-8959

E.P.A. Est. No. 42291-GA-1

### ACTIVE INGREDIENTS:

Glyphosate,  
N-(phosphonomethyl) glycine, in the  
form of its isopropylamine salt.....18.00%  
OTHER INGREDIENTS:.....82.00%  
TOTAL.....100.00%



Manufactured for:

**ab** applied biochemists

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Germantown WI 53022

1-800-558-5106 • www.appliedbiochemists.com

## KEEP OUT OF REACH OF CHILDREN

### CAUTION

### PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Harmful if swallowed. May cause eye irritation. Avoid contact with skin, eyes or clothing.

**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 PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

**USER SAFETY RECOMMENDATIONS:** Users Should: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

**FIRST AID: IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice. **IF SWALLOWED:** Call a 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 control center or doctor. Do not give anything by mouth to an unconscious person.

**EMERGENCY NUMBER:** Call a poison control center or doctor for further treatment advice. Have the product container or label with you when calling a poison control center or doctor, or going for treatment. 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. **NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

**ENVIRONMENTAL HAZARDS:** Except as provided for on this label, do not apply directly to water or to areas where surface water is present. Do not contaminate water when disposing of equipment wastewater or rinsate. **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 with an absorbent and remove to landfill.

**PHYSICAL OR CHEMICAL HAZARDS:** Mix, store or apply this product only in stainless steel, aluminum, 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, lighted cigarette or other ignition source.

**STORAGE AND DISPOSAL:** Do not contaminate water, food or feed by storage or disposal.

**PESTICIDE STORAGE:** To be stored in original container and placed in an area inaccessible to children.

**DISPOSAL:** If empty – Do not reuse this container. Place in trash or offer for recycling if available. If partly filled – If product cannot be used as directed, call your local solid waste agency or 1-800-CLEANUP for disposal instructions. Never place unused product down any indoor (including toilet) or outdoor (including sewer) drain.

### LIMITATION OF LIABILITY

To the extent consistent with applicable law, in no event shall manufacturer or seller be liable for special, incidental, or consequential damages, or for damages in their nature of penalties relating to the goods sold, including use, application, handling, and disposal. Manufacturer or seller shall not be liable to buyer or user by way of indemnification to buyer or to customers of buyer, if any, or for any damages or sums of money, claims or demands whatsoever, resulting from or by reason of, or rising out of the misuse, or failure to follow label warnings or instructions for use, of the goods sold by manufacturer or seller to buyer. All such risks shall be assumed by the buyer, user, or its customers. Buyer's or user's exclusive remedy, and manufacturer's or seller's total liability shall be for damages not exceeding the cost of the product.

If you do not agree with or do not accept any of directions for use, the warranty disclaimers, or limitations on liability, do not use the product, and return it unopened to the seller, and the purchase price will be refunded.

### WARRANTY DISCLAIMER

The directions for use of this product must be followed carefully. The goods delivered to you are furnished "as is" by manufacturer or seller. To the extent permitted by law, 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 crop injury or 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.

**DIRECTIONS FOR USE:** It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read entire label before using this product. Use strictly in accordance with label precautionary statements and directions. Not for use on plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes. For use on plants intended for aesthetic purposes, or climatic modification and being grown in ornamental gardens or parks, or on golf courses or lawns and grounds. This product can injure or destroy all vegetation contacted. Avoid spray drift contact with desirable lawn grasses, flowers, vegetables, shrubs or trees. Do not contact green bark of trees or shrubs. If desirable vegetation is contacted, wash immediately with water.

**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. Keep container closed to prevent spills and contamination.

**SPRAY PREPARATION:** This product is a soluble concentrate that dissolves readily in clean water (free of mud or clay). Reduced results may occur if water containing soil is used, such as water from ponds or unlined ditches. **Additional surfactants are not required for this formulation. This Product Alone With Water As Diluent:** Determine spray volume needed for the treated area. Add one-half the required amount of clean water to the spray tank. Measure the recommended amount of product and add slowly with agitation, and complete filling the tank with water. Mix thoroughly and continue agitation while spraying. **Sprayer Cleanup:** CLEAN THE ENTIRE SPRAYER AFTER APPLICATION OF THIS PRODUCT. Failure to clean the sprayer thoroughly may result in injury to desirable crops which are subsequently sprayed.

### APPLICATION EQUIPMENT AND TECHNIQUES:

Do not apply this product through any type of irrigation system. This product may be applied with the following application equipment:

- **Hand-held and high-volume spray equipment** – pump-up pressure sprayers, knapsack and backpack sprayers, sprayguns, handwands, lances and other hand-held and motorized spray equipment used to direct the spray onto weed foliage. Applications should be made on a spray-to-wet basis, spray coverage should be uniform and complete. Use only coarse sprays.
- **Ground equipment** – Power sprayers fitted with a boom or spray wand/gun may be used for broadcast applications and spot treatments. For best spray distribution and coverage, select a spray volume and delivery system that will ensure accurate and uniform coverage. Boom sprayers equipped with appropriate flat fan nozzles, tips, and screens are suitable for broadcast applications.
- **Spray volumes of 3-30 gallons per acre with spray pressures adjusted to 20-40 psi are appropriate.** Use higher spray volumes within the recommended range for dense weed populations.
- **Selective equipment** – Recirculating sprayers, shielded and hooded sprayers, wiper applicators and sponge bars.
- **Wiper applicators and sponge bars** – Wiper applicators are devices that physically wipe appropriate amounts of this product directly onto the weed.
- **Rope or sponge wick applicators** – Apply this product undiluted (100% solution) to weeds listed on this label.
- **Porous-Plastic Applicators** – Apply this product undiluted (100% solution) in porous-plastic wiper applicators.
- **Controlled droplet applicator (CDA)** – The rate of this product applied per acre by vehicle-mounted CDA equipment must not be less than the amount recommended in this label when applied by conventional broadcast equipment. For vehicle mounted CDA equipment, apply 3 to 15 gallons of water per acre. Do not apply as a fine mist. Use coarse sprays only. Controlled droplet application equipment produces a spray pattern which is not easily visible. Extreme care must be exercised to avoid spray or drift contacting the foliage or any other green tissue of desirable vegetation, as damage or destruction may result.

## SPRAY PREPARATION FOR APPLICATIONS WITH HAND-HELD HIGH VOLUME EQUIPMENT:

Specific use recommendations for annuals, perennials, woody brush, and trees are presented in the section named WEEDS CONTROLLED. Identify the target weed species, note the weed growth stages and select the appropriate spray concentration presented in WEEDS CONTROLLED. Spray concentrations for application with high volume equipment made on a spray-to-wet basis range from 2.75-7.00% vol/vol. Use the lower spray concentrations in the range for annual weeds and the higher spray concentration for perennial and hard-to-control species. The spray preparation chart for applications on a spray-to-wet basis is shown in **Table 1**. When using application methods that result in less than complete coverage, use a 17.5% spray concentration for annual and perennial weeds and a 17.5- 28.0% spray concentration for woody brush and trees. If a straight-stream nozzle is used, start the application at the top of the target vegetation and spray from top to bottom in a "zig-zag" motion. Ensure that at least 50% of the leaf surface is contacted by the spray. Small open-branched trees need only be treated from one side. If foliage is thick or there are multiple root sprouts, application must be made from several sides to ensure adequate coverage. The spray preparation chart for these applications is shown in **Table 2**.

**Table 1. Amounts of this product for Spray Concentrations, % vol/vol**

Volume (gallons)	2.75%	3.50%	4.40%	5.25%	7.00%
1 gallon	3.50 fl.oz.	4.50 fl.oz.	5.60 fl.oz.	6.70 fl.oz.	9.00 fl.oz.
3 gallons	10.50 fl.oz.	13.50 fl.oz.	16.80 fl.oz.	20.10 fl.oz.	27.00 fl.oz.
25 gallons	0.69 gal.	0.88 gal.	1.10 gal.	1.31 gal.	1.75 gal.
50 gallons	1.38 gal.	1.75 gal.	2.20 gal.	2.63 gal.	3.50 gal.
100 gallons	2.75 gal.	3.50 gal.	4.40 gal.	5.25 gal.	7.00 gal.

**Table 2. Amounts of this product for Spray Concentrations, % vol/vol**

Volume (gallons)	17.50%	28.00%
1 gallon	22.40 fl.oz.	35.80 fl.oz.
25 gallons	4.38 gal.	7.00 gal.
50 gallons	8.75 gal.	14.00 gal.
100 gallons	17.50 gal.	28.00 gal.

## WHEN TO APPLY

Apply to vigorously growing plants. Apply to annual weeds at any time after emergence. For best results apply to perennial weeds after seedheads, flowers, or berries appear. On woody brush or trees, apply after leaves have fully expanded. Applications made at less than the recommended stage of growth may result in reduced control. After mowing, clipping or tilling, allow weeds to regrow to the recommended growth stage before spraying this product. Rainfall or watering within 6 hours after application can wash the product off plant foliage which may require retreatment. Delay mowing, clipping, tilling, planting or sodding of treated areas for at least 7 days after application. This allows time for this product to move within the plant for most effective results. Since this product does not work in soil, retreatments will be necessary to control new weeds emerging from seed. One application will control most weeds listed. Symptoms on certain tough perennial weeds and woody brush and tree species may be slow to develop. If control is not achieved within 4 weeks, allow time for the sprayed weeds to regrow and make a repeat application. In some cases, control of woody brush and trees treated in the fall may not be fully apparent until the following season.

## WEEDS CONTROLLED

### ANNUAL WEEDS:

Apply to actively growing grass and broadleaf weeds. Allow at least 3 days after treatment before disturbing vegetation. After this period, weeds may be mowed, tilled or burned. To prevent seed production, applications should be made prior to seedhead formation. This product may be used as a broadcast treatment or spot treatment for annual weeds with any of the application equipment listed on this label in noncropland sites.

**Hand-Held High-Volume Application:** Use a 2.75% vol/vol solution of this product in water and apply to foliage of vegetation to be controlled.

This product will provide full or partial control of the following annual weeds when applied as directed. Annual weeds will continue to germinate from seed throughout the growing season. Repeat treatments will be necessary to control later germinating seeds.

**Broadcast Application:** Generally, the lower application rates within the specified range will provide satisfactory control of sensitive weed species. The higher application rates within the specified range will be required for dense infestations, for adverse/extreme environmental conditions, or for weeds beyond the appropriate growth stages. **Use 0.7 gallons of this product per acre when weeds are less than 6 inches tall. If weeds are greater than 6 inches tall, use 1.1 gallon of this product per acre per 100 gallons of spray solution. Spray volumes of 3 to 10 gallons per acre for ground applications are recommended.**

### WEED SPECIES:

Anoda, spurred  
 Barnyardgrass *Echinochloa crus-galli*  
 Bassia, fivehook *Bassia hyssopifolia*  
 Bittercress  
 Black nightshade  
 Bluegrass, annual *Poa annua*  
 Bluegrass, bulbous *Poa bulbosa*  
 Brome, downy  
 Brome, Japanese  
 Buttercup *Ranunculus* spp.  
 Carolina geranium  
 Carpetweed  
 Cheatgrass  
 Cheeseweed *Malva parviflora*  
 Chervil  
 Chickweed  
 Chickweed, mouseear *Cerastium vulgatum*  
 Cocklebur *Xanthium strumarium*  
 Copperleaf hophornbeam  
 Corn speedwell  
 Crabgrass *Digitaria* spp.  
 Dwarf dandelion *Krigia cespitosa*  
 Eclipta  
 Falsedandelion  
 Falseflax, smallseed *Camelina microcarpa*  
 Fiddleneck *Amsinckia* spp.  
 Filaree  
 Flaxleaf fleabane *Conyza bonariensis*  
 Fleabane *Erigeron* spp.

Florida pusley  
 Foxtail *Setaria* spp.  
 Foxtail, Carolina *Alopecurus carolinianus*  
 Goosegrass  
 Groundsel, common *Senecio vulgaris*  
 Henbit  
 Horseweed/marestail *Conyza canadensis*  
 Itchgrass  
 Johnsongrass, seedling  
 Knotweed  
 Kochia, *Kochia scoparia*  
 Lambsquarters, common *Chenopodium album*  
 Lettuce, prickly *Lactuca seriola*  
 Mayweed  
 Medusahead  
 Morningglory, *Ipomoea* spp.  
 Mustard, blue *Chorispora tenella*  
 Mustard, tansy *Descurainia pinnata*  
 Mustard, tumble *Sisymbrium altissimum*  
 Mustard, wild *Brassica kaber*  
 Oats, wild *Avena fatua*  
 Panicum, *Panicum* spp.  
 Pennycress, field *Thiaspi arvensis*  
 Pigweed, redroot *Amaranthus retroflexus*  
 Pigweed, smooth *Amaranthus hybridus*  
 Plains/Tickseed coreopsis  
 Puncturevine  
 Purslane, common  
 Ragweed, common *Ambrosia artemisiifolia*

Ragweed, giant *Ambrosia trifida*  
 Rocket, London *Sisymbrium irio*  
 Sandbur, field *Cenchrus* spp.  
 Shattercane *Sorghum bicolor*  
 Shepherdspurse *Capsella bursa pastoris*  
 Sicklepod  
 Signalgrass, broadleaf *Brachiaria platyphylla*  
 Smartweed, ladysthumb  
 Smartweed, Pennsylvania  
*Polygonum pennsylvanicum*  
 Sowthistle, annual *Sonchus oleraceus*  
 Spanishneedles  
 Speedwell, purslane  
 Spurge, annual  
 Spurge, prostrate  
 Spurge, spotted  
 Spurry, umbrella *Holosteum umbellatum*  
 Starthistle, yellow  
 Stinkgrass *Eragrostis cilianensis*  
 Sunflower *Helianthus annuus*  
 Teaweed/Prickly sida  
 Texas panicum  
 Thistle, Russian *Salsola kali*  
 Velvetleaf *Abutilon theophrasti*  
 Virginia copperleaf  
 Virginia pepperweed  
 Witchgrass *Panicum capillare*  
 Woolly cupgrass  
 Yellow rocket

Application	Recommendations for Annual Weeds Only	
	Spray Concentration, vol/vol%	Dosage Rate, gallons/A
Spot treatments, hand held high volume equipment	2.75%	---
Broadcast treatments	---	0.7 - 1.1

**PERENNIAL WEEDS:**

This product may be used as a broadcast treatment or spot treatment for perennial weeds with any of the application equipment listed on this label in noncropland and aquatic sites. Generally, the lower application rates within the specified range will provide satisfactory control of sensitive weed species. The higher application rates within the specified range will be required for dense infestations, for adverse/extreme environmental conditions, or for weeds beyond the appropriate growth stages. Specific use recommendations for certain perennial weeds are presented in the following section and **Table 3**.

Application	Recommendations for Perennial Weeds Only	
	Spray Concentration, vol/vol%	Dosage Rate, gallons/A
Spot treatments, hand held high volume equipment	2.75% - 5.25%	---
Broadcast treatments	---	2.0 - 3.3

- Apply to actively growing perennial weeds.
- Best results are obtained when soil moisture is adequate for active weed growth.
- Unless otherwise directed, allow at least 7 days after application before disturbing vegetation.
- NOTE: If weeds have been mowed or tilled, do not treat until plants have resumed active growth and have 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 will provide full or partial control for the following perennial weeds:

Alligatorweed <i>Alternanthera philoxeroides</i> *	Fescue, tall <i>Festuca arundinacea</i>	Paragrass <i>Brachiaria mutica</i>
Anise/Fennel <i>Foeniculum vulgare</i>	German ivy	Pepperweed, perennial
Artichoke, Jerusalem <i>Helianthus tuberosus</i>	Guineagrass <i>Panicum maximum</i>	Phragmites <i>Phragmites</i> spp.*
Bahiagrass <i>Paspalum notatum</i>	Hemlock, poison <i>Conium maculatum</i>	Thistle, Canada
Beachgrass, European	Horsenettle <i>Solanum carolinense</i>	Quackgrass <i>Agropyron repens</i>
Bermudagrass <i>Cynodon dactylon</i>	Horseradish <i>Armoracia rusticana</i>	Redvine*
Bermudagrass, water (knotgrass) <i>Paspalum distichum</i>	Ice plant <i>Mesembryanthemum crystallinum</i>	Reed, giant <i>Arundo donax</i>
Bindweed, Field <i>Convolvulus arvensis</i>	Johnsongrass <i>Sorghum halepense</i>	Ryegrass, perennial <i>Lolium perenne</i>
Bluegrass, Kentucky <i>Poa pratensis</i>	Kikuyugrass <i>Pennisetum clandestinum</i>	Smartweed, swamp <i>Polygonum coccineum</i>
Blueweed, Texas <i>Helianthus ciliaris</i>	Knapweed <i>Centaurea repens</i>	Spatterdock <i>Nuphar luteum</i> †
Brackenfern <i>Pteridium aquilinum</i>	Lantana <i>Lantana camara</i>	Spurge, leafy*
Bromegrass, smooth <i>Bromus intermis</i>	Lespedeza, common <i>Lespedeza striata</i>	Starthistle, yellow <i>Centaurea solstitialis</i>
Bursage, woolly-leaf	Lespedeza, serices <i>Lespedeza cuneata</i>	Sweet potato, wild <i>Ipomoea pandurata</i> *
Canarygrass, reed <i>Phalaris arundinacea</i>	Loosestrife, purple <i>Lythrum salicaria</i> †	Thistle, artichoke <i>Cynara cardunculus</i>
Cattail <i>Typha</i> spp.	Lotus, American <i>Nelumbo lutea</i>	Timothy <i>Phleum pretense</i>
Clover, red <i>Trifolium pratense</i>	Maidencane <i>Panicum hemitomon</i>	Torpedograss <i>Panicum repens</i> *
Clover, white <i>Trifolium repens</i>	Milkweed <i>Asclepia</i> spp.	Trumpet creeper*
Cordgrass <i>Spartina</i> spp.†	Muhly, wirestem <i>Muhlenbergia frondosa</i>	Tules, common <i>Scirpus acutus</i> †
Cutgrass, giant <i>Zizaniopsis miliacea</i> *	Mullein, common <i>Verbascum thapsus</i>	Vaseygrass <i>Paspalum urvillei</i>
Dallisgrass <i>Paspalum dilatatum</i>	Napiergrass <i>Pennisetum purpureum</i>	Velvetgrass <i>Holcus</i> spp.
Dandelion <i>Taraxacum officinale</i>	Nightshade, silverleaf <i>Solanum elaeagnifolium</i>	Waterhyacinth <i>Eichhornia crassipes</i> †
Dock, curly <i>Rumex crispus</i>	Nutsedge, purple, <i>Cyperus rotundus</i>	Waterlettuce <i>Pistia stratiotes</i> †
Dogbane, hemp <i>Apocynum cannabinum</i>	yellow, <i>Cyperus esculentus</i>	Waterprimrose <i>Ludwigia</i> spp.†
Fescue <i>Festuca</i> spp.	Orchardgrass, <i>Dactylis glomerata</i>	Wheatgrass, western
	Pampasgrass <i>Cortaderia jubata</i>	

\*Partial control

†Not for use in California

**Table 3. Recommendations for Perennial Weeds, Dosage Rates, Restrictions and Comments**

Weed Species	Ground Broadcast Equipment	Hand-Held and High Volume Equipment	Precautions, Restrictions & Comments
	Amount of Product, Gals./Acre	Spray Concentration vol/vol, %	
Alligatorweed	2.6	4.4%	Apply when most of the target plants are in bloom. Repeat applications will be required to maintain such control.
Bermudagrass	3.3	5.25%	Apply when target plants are actively growing and when seedheads appear.
Bindweed, field; silverleaf nightshade, Texas blueweed	West of Mississippi River: 2.6 - 3.3  East of Mississippi River: 2.0 - 2.6	5.25%  5.25%	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	2.0 - 2.6	2.75 - 3.5%	Apply to fully expanded fronds which are at least 18 inches long.
Cattail	2.0 - 2.6	2.75%	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.
Cordgrass	2.0 - 3.3	3.5 - 7.0%	Schedule applications in order to allow 6 hours before treated plants are covered by tidewater. The presence of silt or debris on the cordgrass will reduce performance. It may be necessary to wash target plants before application to improve uptake of this product into the plant. Not for use in California.
Cutgrass, giant	2.6	3.5%	Repeat applications will be required to maintain control, especially where vegetation is partially submerged in water. Allow regrowth to the 7 to 10 leaf stage before retreatment.
Hemp dogbane; knapweed; horseradish	2.6	5.25%	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.
Tall fescue	2.0	3.5%	Apply when target plants are actively growing, and most have reached the boot to head stage of growth. When applied prior to boot stage, control may be reduced.
Guineagrass	2.0	2.75%	Apply when target plants are actively growing and when most have reached at least the 7-leaf stage of growth.
Johnsongrass; Kentucky bluegrass; smooth bromegrass; reed canarygrass; orchardgrass; perennial ryegrass; timothy; western wheatgrass	1.3 - 2.0	2.75%	Apply when target plants are actively growing, and most have reached the boot to head stage of growth. When applied prior to boot stage, control may be reduced. In fall, apply before plants have turned brown.
Lantana	--	2.75 - 3.5%	Apply to actively growing lantana at or beyond the bloom stage of growth. Use the higher rate for plants that have reached the woody stage of growth.
Purple loosestrife	1.7	3.5 - 5.25%	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. Not for use in California.
American lotus	1.7	2.75%	Treat when plants are actively growing at or beyond the bloom stage of growth. Best results are achieved when applications are made during summer or fall months. Fall treatments must be applied before a killing frost. Repeat treatments may be necessary to control regrowth from underground parts and seeds.
Maidencane; paragrass	2.6	2.75%	Sequential 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	2.0	5.25%	Apply when target plants are actively growing and have reached the late bud to flower stage of growth.
Nutsedge, purple and yellow	2.0	2.75%	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	--	5.25%	Apply this product with hand-held equipment when plants are actively growing.
Common reed, Phragmites	In Florida: 3.3  Other States: 1.7 - 2.6	5.25%  2.75%	For partial control of phragmites in Florida and the counties of other states bordering the Gulf of Mexico. 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; wirestem muhly	1.3 - 2.0	2.75%	Apply when most quackgrass or wirestem muhly is at least 8 inches high (3 to 4 leaf stage of growth) and actively growing. Allow 3 or more days after application before tillage.
Giant reed; ice plant	--	5.25%	For control of giant reed and ice plant, apply this product with hand-held equipment when plants are actively growing. For giant reeds best results are obtained when applications are made in late summer to fall.
Spatterdock	2.6	2.75%	Apply when most of the plants are in full bloom. For best results apply in late summer or fall. Not for use in California.
Sweet potato, wild	--	5.25%	Apply to actively growing weeds 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.
Canada thistle	1.3 - 2.0	5.25%	Apply when target plants are actively growing and are at or beyond the bud stage of growth.
Torpedograss	2.6 - 3.3	2.75 - 5.25%	Use the lower rates under terrestrial conditions, and the higher rates under partially submerged or floating-mat conditions. Repeat treatment will be required to maintain control.
Tules, common	--	5.25%	Apply this product 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. Not for use in California.
Waterhyacinth	2.2 - 2.6	2.75 - 3.5%	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 required. Not for use in California.
Waterlettuce	--	2.75 - 3.5%	Use higher rates where infestations are heavy. Best results are obtained from mid-summer through winter applications. Spring application may require retreatment. Not for use in California.
Waterprimrose	--	2.75%	Apply this product using hand-held equipment 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. Not for use in California.
Other perennials listed on this label	2.0 - 3.3	2.75 - 5.25%	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 CONTROLS or PARTIALLY CONTROLS the following woody brush, herbaceous vines and trees:

Alder <i>Alnus</i> spp.	Hasardia <i>Haplopappus squamosus</i> *	Poplar, yellow (Tulip tree) <i>Liriodendron tulipifera</i> *
Ash <i>Fraxinus</i> spp.*	Hawthorn <i>Crataegus</i> spp.	Prunus <i>Prunus</i> spp.
Aspen, quaking <i>Populus tremuloides</i>	Hazel <i>Corylus</i> spp.	Raspberry <i>Rubus</i> spp.
Beech	Hickory <i>Carya</i> spp.	Redbud, eastern <i>Cercis canadensis</i>
Birch <i>Betula</i> spp.	Holly	Rose, multiflora <i>Rosa multiflora</i>
Blackberry <i>Rubus</i> spp.	Honeysuckle <i>Lonicera</i> spp.	Russian olive <i>Elaeagnus angustifolia</i>
Blackgum	Hornbeam, American <i>Carpinus caroliniana</i>	Sage, black, white <i>Salvia</i> spp.
Bracken	Kudzu <i>Pueraria lobata</i>	Sagebrush, California <i>Artemisia californica</i>
Broom: French <i>Cytisus monspessulanus</i>	Locust, black <i>Robinia pseudoacacia</i> *	Salmonberry <i>Rubus spectabilis</i>
Scotch <i>Cytisus scoparius</i>	Madrone	Saltcedar <i>Tamarix</i> spp.
Buckwheat, California <i>Eriogonum fasciculatum</i> *	Manzanita <i>Arctostaphylos</i> spp.	Saltbush, sea myrtle <i>Baccharis halimifolia</i>
Cascara <i>Rhamnus purshiana</i> *	Maple: Red <i>Acer rubrum</i> *	Sassafras <i>Sassafras</i> spp.
Catsclaw <i>Acacia greggii</i> *	Sugar <i>Acer saccharum</i>	Sourwood <i>Oxydendrum arboreum</i> *
Ceanothus <i>Ceanothus</i> spp.	Vine <i>Acer circinatum</i> *	Sumac: Poison <i>Rhus vernix</i> *
Chamise <i>Adenostoma fasciculatum</i>	Monkey Flower <i>Mimulus guttatus</i> *	Smooth <i>Rhus glabra</i> *
Cherry: Bitter <i>Prunus emarginata</i>	Oak: Black <i>Quercus velutina</i> *	Winged <i>Rhus copallina</i> *
Black <i>Prunus serotina</i>	Northern Pin <i>Quercus palustris</i>	Sweetgum <i>Liquidambar styraciflua</i>
Pin <i>Prunus pensylvanica</i>	Post <i>Quercus stellata</i>	Swordfern <i>Polystichum munitum</i>
Coyotebrush <i>Baccharis pilularis</i>	Red <i>Quercus rubra</i>	Tallowtree, Chinese <i>Sapium sebiferum</i>
Creeper, Virginia <i>Parthenocissus quinquefolia</i> *	Southern Red <i>Quercus falcata</i>	Thimbleberry <i>Rubus parviflorus</i>
Deerweed	White <i>Quercus alba</i> *	Tobacco, tree <i>Nicotiana glauca</i> *
Dewberry <i>Rubus trivialis</i>	Peppertree, Brazilian <i>Schinus terebinthifolius</i>	Trumpetcreeper <i>Campsis radicans</i>
Dogwood <i>Cornus</i> spp.	Persimmon <i>Diospyros</i> spp.*	Waxmyrtle, southern <i>Myrica cerifera</i> *
Elderberry <i>Sambucus</i> spp.	Pine	Willow <i>Salix</i> spp.
Elm <i>Ulmus</i> spp.*	Poison ivy <i>Rhus radicans</i>	Yerba santa
Eucalyptus, bluegum <i>Eucalyptus</i> spp.	Poison oak <i>Rhus toxicodendron</i>	

\*Partial control

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

Apply this product 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 to early summer when brush species are at high moisture content and are flowering.

This product may be used as a broadcast treatment or spot treatment for woody brush and trees with any of the application equipment listed on this label in noncropland and aquatic sites.

Generally, the lower application rates within the specified range will provide satisfactory control of sensitive weed species. The higher application rates within the specified range will be required for dense infestations, for adverse/extreme environmental conditions, or for weeds beyond the appropriate growth stages. 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.

Applied as a 17.5-28.0% solution as a directed application as described in the HAND-HELD AND HIGH-VOLUME EQUIPMENT section, this product will control or partially control all the species listed in this section of this label. Use the higher rate for dense stands and larger woody brush and trees.

Specific use recommendations for certain woody brush and trees are presented in Table 4.

Application	Recommendations for Woody Brush and Trees Only	
	Spray Concentration, vol/vol%	Dosage Rate, gallons/A
Spot treatments, hand held high volume equipment as full cover spray	2.75% - 7.00%	---
Spot treatments, hand held high volume equipment without full coverage	17.5 - 28.0%	---
Broadcast treatments	---	1.3 - 3.3

**Table 4. Recommendations for Woody Brush and Trees, Dosage Rates, Precautions and Comments**

Weed Species	Ground Broadcast Equipment	Hand-Held and High Volume Equipment	Precautions, Restrictions & Comments
	Amount of Product, Gals./Acre	Spray Concentration vol/vol, %	
Alder; blackberry; dewberry; honeysuckle; oak, raspberry	2.0 - 2.6	2.75 - 4.4%	
Aspen, quaking; hawthorne; trumpetcreeper	1.3 - 2.0	2.75 - 4.4%	
Birch; elderberry; hazel; salmonberry; thimbleberry	--	2.75%	
Broom; French, Scotch	--	4.4 - 5.25%	
Buckwheat, California; hasardia; monkey flower;	--	2.75 - 5.25%	Thorough coverage of foliage is necessary for best results.
Castorbean	--	5.25%	
Catsclaw	--	4.4 - 5.25%	For partial control, apply with hand-held equipment when at least 50% of the new leaves are fully developed.
Cherry, bitter, black, pin, oak, southern red;	1.3 - 3.3	3.5 - 5.25%	
Coyotebrush	--	4.4 - 5.25%	Apply with hand-held equipment when at least 50% of the new leaves are fully developed.
Dogwood; hickory; saltcedar	2.6 - 3.3	3.5 - 7.0%	For partial control.
Eucalyptus, bluegum	--	5.25%	For control of eucalyptus resprouts, apply this product with hand-held equipment when resprouts are 6-12 feet tall. Ensure complete coverage. Apply when plants are growing actively. Avoid application to drought-stressed plants.
Kudzu	2.6	5.25%	Repeat applications will be required to maintain control.
Maple, red	--	2.75 - 4.4%	Apply with hand-held equipment when leaves are fully developed.
Maple, sugar; oak; Northern pine, red;	--	2.75 - 4.4%	Apply with hand-held equipment when at least 50% of the new leaves are fully developed.
Peppertree, Brazilian (Florida); waxmyrtle, southern	--	5.25%	For partial control.
Poison ivy; poison oak	2.6 - 3.3	5.25%	Repeat applications may be required to maintain control. Fall treatments must be applied before leaves lose green color.
Rose, multiflora	1.3	2.75%	Treatments should be made prior to leaf deterioration by leaf-feeding insects.
Sage, black; sagebrush, California; chamise; tallowtree, Chinese	--	2.75%	Thorough coverage of foliage is necessary for best results.
Saltbush, sea myrtle	--	3.5%	
Willow	2.0	2.75%	
Other woody brush and trees listed on this label	1.3 - 3.0	2.75 - 5.25%	For partial control.

**Table 5. Recommendations for Noncropland Use Patterns, Dosage Rates, Spray Volumes, Restrictions, and Comments for Broadcast Applications Appropriate for Each Site.**

Site	Major Weed Species	Amount of Product, Gals./Acre	Spray Volume, Gals./Acre	Amount of Product, fl. oz./1,000 sq. ft.	Spray Volume, Gals./1,000 sq. ft.
Farmsteads, farm roads, roadsides, fence rows, rights-of-way, farm buildings, golf courses, industrial sites, parks, cemeteries & other noncropland sites.	Annual weeds including crabgrass, foxtail, johnsongrass, kochia,	Annual weeds: 0.7 - 1.1	3 - 40	2.0 - 3.2	≤ 1.0
	morningglory, multiflora rose, pigweed, trumpetcreeper, thistle, woody brush.	Perennial weeds 2.0 - 3.3	3 - 40	6.0 - 10.0	≤ 1.0
		Woody brush & trees 1.3 - 3.3	3 - 40	4.0 - 10.0	≤ 1.0

## PRECAUTIONS, RESTRICTIONS & COMMENTS:

### SITE PREPARATION (preplant, preemergence, renovation):

**TRIM AND EDGE:** This product may be used to trim and edge around trees, buildings, sidewalks and roads in noncropland sites.

**BARE GROUND:** Repeated applications of this product may be used on emerged weeds to maintain bare ground.

**NONSELECTIVE POSTEMERGENCE: Annuals and perennials:** Apply to foliage of emerged weeds. Apply at early growth stages of annual weeds and when perennial weeds are approaching maturity. **Woody brush and trees:** Apply this product after full leaf expansion, unless otherwise directed. 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 applications are made in the spring to early summer when brush species are at high moisture content and are flowering. 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. Reduced performance may result if fall treatments are made following a frost.

### 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 a site preparation treatment prior to planting wildlife food plots. Apply as directed to control vegetation in the plot area. Any wildlife food species may be planted after applying this product, or native species may be allowed to 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.

### CUT STUMP APPLICATION:

Cut stump treatments are effective on stumps with diameters larger than 3-4 inches in diameter. 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 100% solution (undiluted) of this product to freshly cut surface immediately after cutting. Treat the entire circumference of the stump by drenching the cambium (the outermost wood between the pith and the bark). 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. The most favorable period for cut stump treatment occurs after full leaf stage in the spring and continues into early summer. Brush and trees treated in the late fall may not be fully controlled. 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</i> spp.	Madrone <i>Arbutus menziesii</i>	Saltcedar <i>Tamarix</i> spp.
Coyotebrush <i>Baccharis pilularis</i> *	Maple <i>Acer</i> spp.*	Sweetgum <i>Liquidambar styraciflua</i> *
Dogwood <i>Cornus</i> spp.*	Oak <i>Quercus</i> spp.	Sycamore <i>Platanus occidentalis</i> *
Eucalyptus <i>Eucalyptus</i> spp.	Poplar <i>Populus</i> spp.*	Tanoak <i>Lithocarpus densiflorus</i>
Hickory <i>Carya</i> spp.*	Reed, giant <i>Arundo donax</i>	Willow <i>Salix</i> spp.

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

### INJECT AND FRILL APPLICATION

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 3.5 - 4.0 ml of this product per 2-3 times of trunk diameter. This is best achieved by applying a 100% concentration (undiluted) 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 with 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 <i>Quercus</i> spp.	Sweet gum <i>Liquidambar styraciflua</i>
Poplar <i>Populus</i> spp.	Sycamore <i>Platanus occidentalis</i>

This treatment will **SUPPRESS** the following woody species:

Black gum <i>Nyssa sylvatica</i> *	Hickory <i>Carya</i> spp.
Dogwood <i>Cornus</i> spp.	Maple, red <i>Acer rebrum</i>

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

### LAWN RENOVATION

Best results are obtained when at least one mowing is skipped prior to treatment. This provides more leaf surface to intercept the spray. For areas where renovation and reseeding is desired, thorough spray coverage of all existing vegetation is necessary. Delay planting or sodding of treated areas for at least 7 days after application.

### ORNAMENTALS

Any ornamental species may be planted in treated areas 7 days or more after application. Apply this product as recommended to control undesirable plants. To avoid injury on desirable plants, prevent spray or drift contact with foliage, stems or green bark. Do not spray into or over the top of growing ornamentals.

### CLEANING EQUIPMENT

Triple-rinse spray tank and flush all sprayer components with water to remove residues of this product. After thorough cleaning, equipment may be used to apply other products.

**Notice: Buyer assumes all responsibility for safety and use not in strict accordance with directions.**