

Nufarm Turf & Specialty

Riverdale[®] Tahoe[™] 4E

HERBICIDE

FOR THE CONTROL OF WOODY PLANTS AND BROADLEAF WEEDS ON RIGHTS-OF-WAY, FORESTS, AND WILDLIFE OPENINGS, INCLUDING GRAZED AREAS ON THESE SITES.

ACTIVE INGREDIENT:

Triclopyr: Butoxyethyl ester of 3,5,6-trichloro-2-pyridinyloxyacetic Acid 61.6%

OTHER INGREDIENTS: 38.4%

TOTAL: 100.0%

Contains Petroleum Distillates

Acid equivalent:

3,5,6-trichloro-2-pyridinyloxyacetic Acid 44.3%, 4 lb/gal.

EPA REG. NO. 228-385

EPA EST. NO. 228-IL-1

MANUFACTURED BY
NUFARM AMERICAS INC.
BURR RIDGE, IL 60527-0866

**KEEP OUT OF REACH OF CHILDREN
CAUTION/PRECAUCION**

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

SEE INSIDE BOOKLET FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS

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

For Medical Emergencies Only, Call (877) 325-1840

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION—PRECAUCION

Causes moderate eye irritation. Harmful if swallowed or absorbed through skin. Avoid contact with eyes, skin, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

PERSONAL PROTECTIVE EQUIPMENT (PPE): Applicators and other handlers must wear: long-sleeved shirt, long pants, shoes plus socks, and chemical-resistant gloves such as butyl rubber ≥14 mils, or natural rubber ≥14 mils, or neoprene rubber ≥14 mils, or nitrile rubber ≥14 mils.

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

USER SAFETY RECOMMENDATIONS

Users Should:

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

FIRST AID

IF ON SKIN OR CLOTHING	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
-------------------------------	--

IF SWALLOWED	<ul style="list-style-type: none"> • 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 a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
---------------------	--

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-325-1840 for emergency medical treatment information.

NOTE TO PHYSICIAN

Contains petroleum distillate—vomiting may cause aspiration pneumonia.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

PHYSICAL OR CHEMICAL HAZARDS

Combustible. Do not use or store near heat or open flame. Do not cut or weld container.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions For Use carefully before applying. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulations.

AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to forestry uses.

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, shoes, socks, protective eyewear and chemical-resistant gloves such as Barrier Laminate, Nitrile Rubber, or Viton.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to all user sites on this label except for forestry uses.

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

Do not enter or allow others to enter the treated areas until spray has dried.

GENERAL INFORMATION

This product is recommended for the control of unwanted woody plants and annual and perennial broadleaf weeds on rights-of-way such as electrical power lines, communication lines, pipelines, roadsides and railroads. Use on these sites may include application to grazed areas as well as establishment and maintenance of wildlife openings.

GENERAL USE PRECAUTIONS

Use Requirements for Non-cropland Areas: No Worker Protection Standard worker entry restrictions or worker notification requirements apply when this product is applied to non-cropland.

In Arizona: The state of Arizona has not approved this product for use on plants grown for commercial production; specifically forests grown for commercial timber production, or on designated grazing areas.

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

Other Precautions: When applying this product in tank mix combination, follow all applicable use directions and precautions on each manufacturer's label.

Many forbs (herbaceous broadleaves) are susceptible to this product. Do not spray grazed areas containing desirable forbs, especially legumes such as clover, unless injury or loss of such plants can be tolerated. However, the stand and growth of established grasses usually is improved after spraying, especially when rainfall is adequate and grazing is deferred.

Established grasses are tolerant to this product, but newly seeded grasses may be injured until well established as indicated by tillering, development of a secondary root system and vigorous growth. Do not reseed treated areas for a minimum of three weeks after treatment.

Do not apply on ditches used to transport irrigation water for domestic purposes. Do not apply where runoff or irrigation water may flow onto agricultural land as injury to crops may result.

Do not apply this product using mist blowers.

Do not apply this product directly to, or otherwise permit it to come into direct contact with cotton, grapes, peanuts, soybeans, tobacco, vegetable crops, flowers, citrus, or other desirable broadleaf plants and do not permit spray mists containing it to drift onto them.

On rights-of-way, roadsides and forestry, it is permissible to treat non-irrigation ditch banks, seasonally dry wetlands, flood plains, deltas, marshes, swamps, bogs,

and transitional areas between upland and lowland sites when surface water is not present. Do not apply to open water such as lakes, reservoirs, rivers, streams, creeks, salt water bays, or estuaries.

Maximum Use Rates: Apply no more than 2 lbs. a.e. (½ gallon of this product) per acre and only one application per growing season on range and pasture sites, including rights-of-way, fence rows, and any areas where grazing or harvesting is allowed.

Grazed areas on non-cropland and forestry sites may be spot treated if they comprise no more than 10 percent of the total area that can be grazed.

Apply no more than 6 lbs. a.e. (1½ gallons of this product) per acre per year to forestry use sites.

For all use sites other than forestry sites and grazed areas, the maximum application rate is 8 lbs. a.e. (2 gallons of the product) per acre per year.

Avoid Injurious Spray Drift. Applications should be made only when there is little or no hazard from spray drift. Very small quantities of spray, which may not be visible may seriously injure susceptible plants. Do not spray when wind is blowing toward susceptible crops or ornamental plants near enough to be injured. It is suggested that a continuous smoke column at or near the spray site or a smoke generator on the spray equipment be used to detect air movement, lapse conditions, or temperature inversions (stable air). If the smoke layers or indicates a potential of hazardous spray drift, do not spray.

APPLICATION EQUIPMENT AND TECHNIQUES

AERIAL APPLICATION

This product may be aerially applied by fixed wing aircraft or helicopter. For aerial application, use an agriculturally registered spray thickening drift control additive as recommended by the manufacturer or apply through the Microfoil* boom, Thru-Valve* boom, or equivalent drift control system. Thickened sprays prepared by using high viscosity invert systems or other drift reducing systems may be utilized if they are made as drift-free as are mixtures containing an agriculturally registered thickening agent or applications made with the Microfoil boom or Thru-Valve boom. If a spray thickening agent is used, follow all use recommendations and precautions on the product label. Do not use a thickening agent with the Microfoil boom, Thru-Valve boom, or other systems that cannot accommodate thick sprays.

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 to agricultural rice patties.

1. The distance of the outer most nozzles on the boom must not exceed ¾ the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they shall be observed.

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

Information On 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 parallel to the airstream 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

Database and format copyright © by Vance Communication Corporation. All rights reserved.

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 to 10 miles per hour. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 miles per hour due to variable wind direction and high 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 temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning.

Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas

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

Ground Equipment: To aid in reducing spray drift potential when making ground applications near susceptible crops or other desirable broadleaf plants, this product should be applied through large droplet producing equipment, such as the Radiarc sprayer or in thickened spray mixtures using an agriculturally registered drift control additive, or high viscosity invert systems. When using a spray thickening or inverting additive, follow all use directions and precautions on the product label. With ground equipment spray drift can be reduced by keeping the spray boom as low as possible; by applying 20 gallons or more of spray per acre; and by spraying when wind velocity is low (Follow State regulations). Do not apply with nozzles that produce a fine droplet spray. Keep operating spray pressures at the lower end of the manufacturer's recommended pressures for the specific nozzle type used. Low pressure nozzles are available from spray equipment manufacturers. Select nozzle pressures which provide adequate plant coverage, but minimize the production of fine spray particles. Avoid calm conditions which may be conducive to air inversions. In hand-gun applications, select the minimum spray pressure that will provide adequate plant coverage (without forming a mist). Do not apply with hollow cone-type insecticide or other nozzles that produce a fine-droplet spray. Do not use a mistblower.

Spray volume should be sufficient to obtain complete and uniform foliar coverage. For aerial application apply at least 2 gallons of total spray volume per acre. For ground application, apply 10 or more gallons of total spray volume per acre. Use higher spray volumes for ground or aerial application to ensure adequate coverage with increased depth and density of foliage, particularly for treatment of woody plants or as indicated in the "Treatment Recommendations" section of this label.

This product may be foliar applied by diluting with water or by preparing an oil-water emulsion. For woody plant control, an oil-water emulsion will perform more dependably under a broader range of conditions than a straight water dilution and is especially recommended for aerial applications.

Oil-Water Emulsions

Oil-water emulsions may be prepared using diesel fuel, fuel oil, or kerosene plus an emulsifier such as Sponto™ 712 or Triton™ X-100. Use a jar test to check spray mix compatibility before preparing oil-water emulsion sprays in the mixing tank.

Ground Application: Add oil to the spray mix at a rate of 5 to 10 percent of the total mix, up to a maximum of 1 gallon of oil per acre, using agricultural spray emulsifiers according to mixing instructions below.

Aerial Application: Use oil and water in the spray mixture in a 1:5 ratio (1 part oil to 5 parts water), up to a maximum of 1 gallon of oil per acre according to mixing instructions below.

Water Dilutions

For water dilutions, an agricultural surfactant at the manufacturer's recommended rate may be added to the spray mixture to provide improved wetting of foliage. To help minimize spray drift, a drift control and deposition aid cleared for application to growing crops is recommended.

TANK MIXING

This product may be applied in tank mix combination with labeled rates of other herbicides provided (1) the tank mix product is labeled for the timing and method of application for the use site to be treated; and (2) tank mixing is not prohibited by the label of the tank mix product.

TANK MIXING PRECAUTIONS

- Read carefully and follow all applicable use directions, precautions, and limitations on the respective product labels.
- Do not exceed recommended application rates. If products containing the same active ingredient are tank mixed, do not exceed the maximum allowable active ingredient use rates.
- For direct injection or other spray equipment where the product formulations will be mixed in undiluted form, special care should be taken to ensure tank mix compatibility.
- Always perform a (jar) test to ensure the compatibility of products to be used in tank mixture.

TANK MIX COMPATIBILITY TESTING

A jar test is recommended prior to tank mixing to ensure compatibility of this product and other herbicides or spray carriers. Use a clear glass quart jar with lid and mix the tank mix ingredients in their relative proportions. Invert the jar containing the mixture several times and observe the mixture for approximately 1/2 hour. If the mixture balls-up, forms flakes, sludges, jels, oily films or layers, or other precipitates, it is not compatible and the tank mix combination should not be used.

MIXING ORDER

1. Add half the needed water to the mixing tank and start agitation.
2. Add water soluble herbicide (if used).
3. Prepare a premix of oil, emulsifier (if oil-water emulsion), and this product plus other oil-soluble herbicide (if used), e.g. 2,4-D ester. Continue agitation and add premix to the spray tank. **Note:** Do not allow water or mixtures containing water to get into the premix or this product since a thick "invert" (water in oil) emulsion may be formed that will be difficult to break. Such an emulsion may also be formed if the premix or this product is put in the mixing tank before the addition of water.
4. Add the remaining water. Also during final filling of the tank add a drift control and deposition aid cleared for application to growing crops (if used), plus an agricultural surfactant (if a water dilution rather than an oil-water emulsion spray is used).

MIXING WITH LIQUID FERTILIZER FOR BROADLEAF WEED CONTROL

This product may be combined with liquid nitrogen fertilizer suitable for foliar application to accomplish weed control and fertilization of grass pastures in one operation. Use this product in accordance with recommendations for weed control in grass pastures as given on this label. Use liquid fertilizer at rates recommended by supplier or Extension Service Specialist. **Note:** This product is not recommended for use with liquid fertilizer on woody plants (brush). Foliage burn caused by liquid fertilizer may reduce herbicide effectiveness on woody plants.

Compatibility with Liquid Fertilizer: Prior to mixing in spray tank, conduct a "jar test" for spray mixture compatibility by mixing each component in the required order and proportion in a clear glass jar. See procedure for Tank Mixing Compatibility Testing, above. A compatibility aid such as Unite or Compex may be needed in some situations. **Compatibility is best with straight liquid nitrogen fertilizer solutions. Mixing with N-P-K solutions or suspensions may not be satisfactory even with the addition of compatibility aid.** Premixing this product with 1 to 4 parts water may help in difficult situations.

Fill in the spray tank about half-full with the liquid fertilizer, then add the herbicide with agitation and complete filling the tank with fertilizer. Apply immediately and continue agitation in the spray tank during application.

Precautions: Do not store liquid fertilizer spray mixtures. Application with liquid fertilizer during very cold weather (near freezing) is not advisable. The likelihood of mixing or compatibility problems with liquid fertilizer increases under cold conditions.

Note: Do not use broadcast spray equipment used for application of this product for other applications to susceptible crops or desirable plants, or land planted to such plants, unless it has been determined that all phytotoxic herbicide residue has been removed by thorough cleaning of the equipment.

Oil Mixture Sprays for Basal Treatment: When preparing oil-based spray mixtures, use either diesel fuel, No. 1 or No. 2 fuel oil, kerosene or a commercially available basal, oil. Substitute other oils or diluents only as recommended by the oil or diluents manufacturer. When mixing with a basal oil or other oils or diluents, read and follow the use directions and precautions on the manufacturer's product label. Add this product to the required amount of oil in the spray tank or mixing tank and mix thoroughly. If the mixture stands over 4 hours, reagitiation is required.

High Volume Leaf-Stem Treatment: To minimize spray drift, keep sprays no higher than brush tops and keep spray pressures low enough to provide coarse spray droplets. A spray thickening agent may be used to reduce spray drift.

GRAZING RESTRICTIONS

- 1) Lactating dairy animals
 - Two quarts per acre or less: Do not graze on treated area for 14 days after treatment.
 - Greater than 2 to 6 quarts per acre: Do not graze until the next growing season.
- 2) Other livestock
 - Two quarts per acre or less: No grazing restrictions.
 - Greater than 2 to 6 quarts per acre: Do not graze from treated area for 14 days after treatment.

Slaughter Restrictions

Withdraw livestock from grazing treated grass at least 3 days before slaughter. This restriction applies to grazing during the season following treatment.

PLANTS CONTROLLED

Woody Plant Species

Alder	Gorse	Salmonberry
Arrowwood	Granjeno	Salt-bush
Ash	Guajillo	(<i>Baccharis</i> spp.) ²
Aspen	Guara ²	Salt-cedar ¹
Bear Clover (Bearnat)	Hawthorn	Sassafras
Beech	Huisache (suppression)	Scotch broom
Birch	Hazel	Sumac
Blackberry	Hickory	Sweetbay magnolia
Blackbush	Hornbeam	Sweetgum
Blackgum	Kudzu ³	Sycamore
Boxelder ¹	Lantana ²	Tanoak
Brazilian pepper	Locust	Thimbleberry
Buckthorn	Madrone	Tree-of-heaven
Cascara	Maples (except bigleaf and Vine ²)	(<i>Ailanthus</i>) ¹
Ceanothus	Milkweed vine ²	Trumpetcreeper ²
Cherry ²	Mulberry	Tulip poplar
Chinquapin	Oaks	Twisted acacia
Choke Cherry	Osage orange	Virginia creeper ²
Cottonwood	Peppervine ²	Waxmyrtle
Crataegus (hawthorn)	Persimmon	Wild rose
Dogwood	Pine	Willow
Douglas-fir	Poison Ivy	Willow primrose
Elderberry	Poison Oak	Winged elm
Elm	Poplar	
Gallberry		

¹ For best control, use either a basal bark or cut stump treatment.

² Basal or dormant stem applications only.

³ For complete control, retreatment may be necessary.

Annual and Perennial Broadleaf Weeds Controlled

Black medic	Field bindweed	Smartweed
Bull thistle	Goldenrod	Sweet clover
Burdock	Ground ivy	Tropical soda apple
Canada thistle	Lambsquarters	Vetch
Chicory	Lespedeza	Wild carrot
Cinquefoil	Matchweed	(Queen Anne's lace)
Clover	Mustard	Wild lettuce
Creeping beggarweed	Oxalis	Wild violet
Curly dock	Plantain	Yarrow
Dandelion	Purple loosestrife	
Dog fennel	Ragweed	

Table 1 (Maximum Application Rate)

The following table is provided as a guide to the user to achieve the proper rate of this product without exceeding the maximum use rate of 8 quarts per acre.

SPRAY VOLUME (Per Acre)	QUARTS OF TAHOE 4E (Per 100 Gallons of Spray) (Not to Exceed 8 Quarts per Acre)
400	2
300	2.7
200	4
100	8
50	16
20	40
10	80

NOTE: See "GENERAL USE PRECAUTIONS" section to find maximum use rate listed by sites.

APPLICATION METHODS AND TREATMENT RECOMMENDATIONS

Foliar Applications

Use this product at rates of 1 to 8 quarts per acre to control broadleaf weeds and woody plants. In all cases use the amount specified in enough water to give uniform and complete coverage of the plants to be controlled. The recommended order of addition to the spray tank is water, spray thickening agent *(if used), surfactant (if used), additional herbicide (if used), and this product. If a standard agricultural surfactant is used, use at a rate of 1 to 2 quarts per acre. Use continuous adequate agitation.

Before using any recommended tank mixtures, read the directions and all precautions on both labels.

For best results applications should be made when woody plants and weeds are actively growing. When hard-to-control species such as Ash, Blackgum, Choke cherry, Elm, Maples (other than vine or big leaf), Oaks, Pines, or Winged elm are prevalent, and during applications made during late summer when the plants are mature, or during drought conditions, use the higher rates of this product alone or in combination with Tordon* 101 Mixture herbicide.

When using this product in combination with 3.8 pounds per gallon 2,4-D low volatile ester herbicide generally the higher rates should be used for satisfactory

brush control. Use the higher dosage rates when brush approaches an average of 15 feet in height or when the brush covers more than 60 percent of the area to be treated. If lower rates are used on hard-to-control species, resprouting may occur the year following treatment.

On sites where easy to control brush species dominate, rates less than those recommended may be effective. Consult state or local extension personnel for such information.

FOLIAR TREATMENT WITH GROUND EQUIPMENT

High Volume Foliar Treatment

For control of woody plants, use this product at the rate of 1 to 3 quarts per 100 gallons of spray mixture, or this product at 1 to 3 quarts may be tank mixed with labeled rates of 2,4-D low volatile ester herbicide, Tordon 101 Mixture herbicide, or Tordon K herbicide and diluted to make 100 gallons of spray. Apply at a volume of 100 to 400 gallons of total spray per acre depending on size and density of woody plants. Coverage should be thorough to wet all leaves, stems, and root collars. See Table 1 for relationship between spray volume and maximum application rate. When tank mixing, follow applicable use directions and precautions on each manufacturer's label.

Low Volume Foliar Treatment

To control susceptible woody plants, mix up to 20 quarts of this product in 10 to 100 gallons of finished spray. The spray concentration of this product and total spray volume per acre should be adjusted according to the size and density of target woody plants and kind of spray equipment used. With low volume sprays, use sufficient spray volume to obtain uniform coverage of target plants including the surfaces of all foliage, stems, and root collars (See General Use Precautions). For best results, a surfactant should be added to all spray mixtures. Match equipment and delivery rate of spray nozzles to height and density of woody plants. When treating tall, dense brush, a truck mounted spray gun with spray tips that deliver up to 2 gallons per minute at 40 to 60 psi may be required. Backpack or other types of specialized spray equipment with spray tips that deliver less than 1 gallon of spray per minute may be appropriate for short, low to moderate density brush. See Table 1 for relationship between mixing rate, spray volume and maximum application rate.

Tank Mixing

As a low volume foliar spray, up to 12 quarts of this product may be applied in tank mix combination with labeled rates of Tordon K or Tordon 101 Mixture in 10 to 100 gallons of finished spray.

BROADCAST APPLICATIONS WITH GROUND EQUIPMENT

Make application using equipment that will assure thorough and uniform coverage at spray volumes applied.

WOODY PLANT CONTROL

Foliage Treatment: Use 4 to 8 quarts of this product in enough water to make 5 or more gallons per acre of total spray, or this product at 1 ½ to 3 quarts may be combined with labeled rates of 2,4-D low volatile ester, Tordon 101 Mixture, or Tordon K in sufficient water to make 5 or more gallons per acre of total spray.

Broadleaf Weed Control: Use this product at rates of 1 to 4 quarts in a total volume of 5 or more gallons per acre as a water spray mixture. Apply at any time weeds are actively growing. This product at 0.25 to 3 quarts may be tank mixed with labeled rates of 2,4-D amine or low volatile ester, Tordon K, or Tordon 101 Mixture to improve the spectrum of activity. For thickened (high viscosity) spray mixtures, this product can be mixed with diesel oil or other inverting agent. When using an inverting agent, read and follow the use directions and precautions on the product label.

AERIAL APPLICATION

Aerial sprays should be applied using suitable drift control (See "General Use Precautions").

Foliage Treatment (Utility and Pipeline Rights-of-Way): Use 4 to 8 quarts of this product alone, or 3 to 4 quarts of this product in a tank mix combination with labeled rates of 2,4-D low volatile ester, Tordon 101 Mixture or Tordon K and apply in a total spray volume of 10 to 30 gallons per acre. Use the higher rates and volumes when plants are dense or under drought conditions.

SPOT TREATMENT TO CONTROL CLUMPS OF RESPROUTING HARDWOODS SUCH AS BIG LEAF MAPLE USING A HOVERING HELICOPTER IN FORESTS

Stem Treatment Before Leaf-Out: Mix 1 to 2 gallons of this product with about 20 gallons diesel oil and enough water to make 100 gallons of solution. Apply as an invert emulsion by means of a hovering helicopter equipped with a nozzle system to direct sufficient spray to cover the stems to the ground line of the sprouted trees, usually ¾ to 1 ½ gallon per clump.

Note: Conifers contacted by this spray may be seriously injured; in existing plantations, drift control systems, such as invert emulsions, should be used to minimize injury to adjacent conifers. A dye or other marking system to designate treated trees may be used.

FOR "CHEMICAL MOWING" ON RIGHTS-OF-WAY AND ROADSIDES INFESTED WITH ANNUAL AND PERENNIAL BROADLEAF WEEDS OR WOODY PLANTS

This product may be applied to the cut surfaces of weed or brush stubble under the deck of a rotary mower such as the Lucas "64" System or other Riverdale approved equipment that is designed to uniformly apply the herbicide. This method of application may be used for control of annual and perennial broadleaf weeds and for suppression and stem density reduction of woody plants that occur on rights-of-way, airport grounds, petroleum tank farms or other industrial sites. Apply when growing conditions are favorable and there is active plant growth.

Database and format copyright © by Vance Communication Corporation. All rights reserved.

Follow directions on the label for this product for approved sites, and weed species controlled or suppressed.

Broadleaf Weed Control: Apply at labeled rates for this product under the section "Broadcast Applications with Ground Equipment—Broadleaf Weed Control". Apply the recommended rate in a minimum spray volume of 3 gallons per acre. Follow label recommendations for herbicides that may be applied in tank mix combination with this product to improve weed control or broaden the spectrum of weeds controlled.

Woody Plant Control: For suppression and stem density reduction of woody species, use 3 to 6 quarts of this product in a minimum spray volume of 5 gallons per acre. Follow label recommendations for herbicides that may be applied in tank mix combination with this product to improve woody plant control or broaden the spectrum of woody plants controlled.

BASAL BARK AND DORMANT BRUSH TREATMENT

To control susceptible woody plants in rights-of-way, in forests and forest roadsides, use this product in oil or oil-water mixtures prepared and applied as described below. When preparing mixtures, use as oils either a commercially available basal oil, diesel fuel, No. 1 or No. 2 fuel oil, or kerosene. Substitute other oils or diluents only as recommended by the oil or diluent's manufacturer. When mixing with a basal oil or other oils or diluents, read and follow the use directions and precautions on the product label prepared by the oil or diluent's manufacturer.

Oil Mixture Sprays

Add this product to the required amount of oil in the spray tank or mixing tank and mix thoroughly. If the mixture stands over 4 hours, reagitiation is required.

Oil Mixtures of this product and Tordon K: Tordon K and this product may be used in tank mix combination for basal bark treatment of woody plants. These herbicides are incompatible and will not form a stable mixture when mixed together directly in oil. Stable tank mixtures for basal bark application can be made if each product is first combined with a compatibility agent prior to final mixing in the desired ratio. (See product bulletin for mixing instructions.)

Oil-Water Mixture Sprays

First, premix this product, oil and surfactant in a separate container. Do not allow any water or mixtures containing water to get into the product or the premix. Fill the spray tank about half full with water, then slowly add the premix with continuous agitation and complete filling the tank with water. Continue moderate agitation.

Note: If the premix is put in the tank without any water, the first water added may form a thick "invert" (water in oil) emulsion which will be hard to break.

Basal Bark Treatment

To control susceptible woody plants with stems less than 6 inches in basal diameter, mix 1 to 5 gallons of this product in enough oil to make 100 gallons of spray mixture. Apply with knapsack sprayer or power spraying equipment using low pressure (20 to 40 psi). Spray the basal parts of brush and tree trunks to a height of 12 to 15 inches from the ground. Thorough wetting of the indicated area is necessary for good control. Spray until runoff at the ground line is noticeable. Old or rough bark requires more spray than smooth young bark. Apply at any time, including the winter months, except when snow or water prevent spraying to the ground line.

Low Volume Basal Bark Treatment

To control susceptible woody plants with stems less than 6 inches in basal diameter, mix 20 to 30 gallons of this product in enough oil to make 100 gallons of spray mixture. Apply with a backpack or knapsack sprayer using low pressure and a solid cone or flat fan nozzle. Spray the basal parts of brush and tree trunks in a manner which thoroughly wets the lower stems, including the root collar area, but not to the point of runoff. Herbicide concentration should vary with size and susceptibility of species treated. Apply at any time, including the winter months, except when snow or water prevent spraying to the ground line.

This product Plus Tordon K in Oil Tank Mix

This product and Tordon K may be applied as a low volume basal bark treatment to improve control of certain woody species such as Ash, Elm, Maple, Poplar, Aspen, Hackberry, Oak, Oceanspray, Birch, Hickory, Pine, Tanoak, Cherry, Locust, Sassafras, and Multiflora rose. (See product bulletin for mixing instructions.)

Streamline Basal Bark Treatment (Southern States)

To control or suppress susceptible woody plants for conifer release, mix 20 to 30 gallons of this product in enough oil to make 100 gallons of spray mixture. Apply with a backpack or knapsack sprayer using equipment which provides a directed straight stream spray. Apply sufficient spray to one side of stems less than 3 inches in basal diameter to form a treated zone that is 6 inches in height. When the optimum amount of spray mixture is applied, the treated zone should widen to encircle the stem within approximately 30 minutes. Treat both sides of stems which are 3 to 5 inches in basal diameter. Direct the spray at bark that is approximately 12 to 24 inches above ground. Pines (Loblolly, Slash, Shortleaf, and Virginia) up to 2 inches in diameter breast height (dbh) can be controlled by directing the spray at a point approximately 4 feet above ground. Vary spray mixture concentration with size and susceptibility of the species being treated. Best results are achieved when applications are made to young vigorously growing stems which have not developed the thicker bark characteristic of slower growing, understorey trees in older stands. This technique is not recommended for scrub and live oak species, including Blackjack, Turkey, Post, Live, Bluejack and Laurel oaks, or Bigleaf maple. Apply from approximately 6 weeks prior to hardwood leaf expansion in the spring until approximately 2 months after leaf expansion is completed. Do not apply when snow or water prevent spraying at the desired height above ground level.

Database and format copyright © by Vance Communication Corporation. All rights reserved.

Low Volume Stem Bark Band Treatment (North Central and Lake States)

To control susceptible woody plants with stems less than 6 inches in basal diameter, mix 20 to 30 gallons of this product in enough oil to make 100 gallons of spray mixture. Apply with a backpack or knapsack sprayer using low pressure and a solid cone or flat fan nozzle. Apply the spray in a 6 to 10 inch wide band that completely encircles the stem. Spray in a manner that completely wets the bark, but not to the point of runoff. The treatment band may be positioned at any height up to the first major branch. For best results apply the band as low as possible. Spray mixture concentration should vary with size and susceptibility of species to be treated. Applications may be made at any time, including winter months.

Thinline Basal Bark Treatment

To control susceptible woody plants with stems less than 6 inches in diameter, apply this product either undiluted or mixed at 50 to 75 percent volume per volume with oil in a thin stream to all sides of the lower stems. The stream should be directed horizontally to apply a narrow band around each stem or clump. Use a minimum of 2 to 15 milliliters of this product or oil mixture with this product to treat single stems and from 25 to 100 milliliters to treat clumps of stems. Use an applicator metered or calibrated to deliver the small amounts required.

Dormant Stem Treatment

Dormant stem treatments will control susceptible woody plants and vines with stems less than 2 inches in diameter. Plants with stems greater than 2 inches in diameter may not be controlled and resprouting may occur. This treatment method is best suited for sites with dense, small diameter brush. Dormant stem treatments of this product can also be used as a chemical sidetrim for controlling lateral branches of larger trees that encroach onto roadside, utility, or other rights-of-way.

Mix 4 to 8 quarts of this product in 2 to 3 gallons of crop oil concentrate or other recommended oil and add this mixture to enough water to make 100 gallons of spray solution. Use continuous adequate agitation. Apply with Radiarc, OC or equivalent nozzles, or handgun using 70 to 100 gallons of spray per acre to ensure uniform coverage of stems. This product may be mixed with 4 quarts of Patron® 170 herbicide to improve the control of black cherry and broaden the spectrum of herbicidal activity. In western states, apply anytime after woody plants are dormant. In other areas apply anytime within 10 weeks of budbreak, generally February through April. Do not apply to wet or saturated bark as poor control may result.

Cut Stump Treatment

To control resprouting of cut stumps of susceptible species, mix 20 to 30 gallons of this product in enough oil to make 100 gallons of spray mixture. Apply with a backpack or knapsack sprayer using low pressures and a solid cone or flat fan nozzle. Spray the root collar area, sides of the stump, and the outer portion of the cut surface including the cambium until thoroughly wet, but not to the point of runoff. Spray mixture concentration should vary with size and susceptibility of species treated. Apply at any time, including in winter months, except when snow or water prevent spraying to the ground line.

Treatment of Cut Stumps in Western States

To control resprouting of salt-cedar and other Tamarix species, Bigleaf maple, Tanoak, Oregon myrtle, and other susceptible species, apply undiluted product to wet the cambium and adjacent wood around the entire circumference of the cut stump. Treatments may be applied throughout the year; however, control may be reduced with treatment during periods of moisture stress as in late summer. Use an applicator which can be calibrated to deliver the small amounts of material required.

Note: All basal bark and dormant brush treatment methods may be used to treat susceptible woody species provided that no more than 1.5 quarts of this product are applied per acre. Large plants or species requiring higher rates of this product may not be completely controlled.

FOREST MANAGEMENT APPLICATIONS

For broadcast applications apply the recommended rate of this product in a total spray volume of 5 to 25 gallons per acre by air or 10 to 100 gallons per acre by ground. Use spray volumes sufficient to provide thorough coverage of treated foliage. Use application systems designed to prevent spray drift to off-target sites. Nozzles or additives that produce larger droplets may require higher spray volumes to provide adequate coverage.

Plant Back Interval for Conifers: Conifers planted sooner than 1 month after treatment with this product at less than 4 quarts per acre or sooner than 2 months after treatment at 4 to 6 quarts per acre may be injured. When tank mixtures of herbicides are used for forest site preparation, labels for all products in the mixture should be consulted and the longest recommended waiting period observed.

BROADCAST TREATMENTS FOR FOREST SITE PREPARATION (NOT FOR CONIFER RELEASE)

Southern States Including Alabama, Arkansas, Delaware, Florida, Georgia, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia: To control susceptible woody plants and broadleaf weeds, apply this product at a rate of 4 to 8 quarts per acre. To broaden the spectrum of woody plants and broadleaf weeds controlled, apply 2 to 4 quarts per acre of this product in tank mix combination with labeled rates of Tordon 101 Mixture or Tordon K, Tordon 101 Mixture and Tordon K are not registered for use in the states of California and Florida. Where grass control is also desired, this product, alone or in combination with Tordon K or Tordon 101 Mixture, may be tank mixed with labeled rates of other herbicides registered for grass control in forests. Use of tank mix products must be in accordance with the most restrictive of label limitations and precautions. No label application rates may be exceeded.

Database and format copyright © by Vance Communication Corporation. All rights reserved.

This product cannot be tank mixed with any product containing a label prohibition against such mixing.

In Western, Northeastern, North Central, and Lake States (States Not Listed Above As Southern States): To control susceptible woody plants and broadleaf weeds, apply this product at a rate of 3 to 6 quarts per acre. To broaden the spectrum of woody plants and broadleaf weeds controlled, apply 1.5 to 3.0 quarts per acre of this product in tank mix combination with labeled rates of Tordon 101 Mixture, Tordon K, or 2,4-D low volatile ester. Tordon 101 Mixture and Tordon K are not registered for use in the states of California and Florida. Where grass control is also desired, this product, alone or in combination with Tordon K or Tordon 101 Mixture, may be tank mixed with labeled rates of other herbicides registered for grass control in forests. When applying tank mixes, follow applicable use directions and precautions on each product label.

Applications for Site Preparation in Southern Coastal Flatwoods: To control susceptible broadleaf weeds and woody species such as Gallberry and Wax-myrtle, and for partial control of Saw-palmetto, apply 2 to 4 quarts per acre of this product. To broaden the spectrum of species controlled to include Fetterbush, Staggerbush, Titi, and grasses, apply 2 to 3 quarts per acre of this product in tank mix combination with labeled rates of Arsenal® Applicator's Concentrate herbicide. Where control of Gallberry, Wax-myrtle, broadleaf weeds, and grasses is desired, 2 to 3 quarts per acre of this product may be applied in tank mix combination with labeled rates of Accord® herbicide.

These treatments may be broadcast during site preparation of flat planted or bedded sites or, on bedded sites, applied in bands over the top of beds. For best results, make applications in late summer or fall. Efficacy may not be satisfactory when applications are made in early season prior to August.

Note 1: Do not apply after planting pines.

Note 2: Conifers planted sooner than one month after treatment with this product at less than one gallon per acre or sooner than two months after treatment at 1 to 2 gallons per acre may be injured. When tank mixtures of herbicides are used for forest site preparation, labels for all products in the mixture should be consulted and the longest recommended waiting period observed.

APPLICATIONS FOR CONIFER RELEASE

Note: Applications for conifer release may cause temporary damage and growth suppression where contact with conifers occur; however, injured conifers should recover and grow normally. Over-the-top spray applications can kill pines.

Directed Sprays: To release conifers from competing hardwoods and brush such as Red maple, Sugar maple, Striped maple, Sweetgum, Red and White oaks, Ash, Hickory, Alder, Birch, Aspen, Pin cherry, Ceanothus spp., Blackberry, Chinquapin, and Poison oak, mix 4 to 20 quarts of this product in enough water to make 100 gallons of spray mixture. This spray should be directed onto foliage of competitive hardwoods using knapsack or backpack sprayers with flat fan nozzles or equivalent any time after the hardwoods and brush have reached full leaf size, but before autumn coloration. The majority of treated hardwoods and brush should be less than 6 feet in height to ensure adequate spray coverage. Care should be taken to direct spray solutions away from conifer foliage, particularly foliage of desirable pines. See Table 1 for relationship between mixing rate, spray volume and maximum application rate.

Broadcast Applications for Mid-Rotation Understory Brush Control in Southern Coastal Flatwoods Pine Stands

(Ground Equipment Only): For control of susceptible species such as Gallberry and Wax-myrtle and broadleaf weeds, apply 2 to 4 quarts per acre of this product. To broaden the spectrum of woody plants controlled to include Fetterbush, Staggerbush, and Titi, apply 2 to 3 quarts per acre of this product in tank mix combination with labeled rates of Arsenal Applicator's Concentrate. Saw-palmetto will be partially controlled by use of this product at 4 quarts per acre or by mixtures of this product at 2 to 3 quarts per acre in tank mix combination with labeled rates of either Arsenal Applicator's Concentrate or Escort® herbicide.

These mixtures should be broadcast applied over target understory brush species, but to prevent injury to pines, make applications underneath the foliage of pines. It is recommended that sprays be applied in 30 or more gallons per acre of total volume. For best results, make applications in late summer or fall. Efficacy may not be satisfactory when applications are made in early season prior to August.

BROADCAST APPLICATIONS FOR CONIFER RELEASE IN THE PACIFIC NORTHWEST AND CALIFORNIA

On Dormant Conifers Before Bud Swell (Excluding Pines): To control or suppress deciduous hardwoods such as Vine maple, Bigleaf maple, Alder, Scotch broom, or Willow before leaf-out or evergreen hardwoods such as Madrone, Chinquapin, and Ceanothus spp., use this product at 1 to 2 quarts per acre. Diluents used may be diesel or fuel oil. Or, water plus 1 to 2 gallons per acre of diesel oil or a suitable surfactant or oil substitute at manufacturer's recommended rates may be used.

On Conifer Plantations (Excluding Pines) After Hardwoods Begin Growth and Before Conifer Bud Break ("Early Foliar" Hardwood Stage): Use this product at 1.0 to 1.5 quarts alone or plus 2,4-D low volatile ester herbicide in water carrier to provide no more than 3 pounds acid equivalent per acre from both products. After conifer bud break, these sprays may cause more serious injury to the crop trees. Use of a surfactant may cause unacceptable injury to conifers especially after bud break.

On Conifer Plantations (Excluding Pines) After Conifers Harden Off In Late Summer and While Hardwoods Are Still Growing Actively: Use this product at rates of 1.0 to 1.5 quarts per acre alone or plus 2,4-D low volatile ester to provide no more than 3 pounds acid equivalent per acre from both products. Treat as soon after conifer bud hardening as possible so that hardwoods and brush are

actively growing. Use of oil, oil substitute, or surfactant may cause unacceptable injury to the conifers.

Note: Sprays may cause discolored needles and temporary growth suppression of some conifers, but they should recover and grow normally.

BROADCAST APPLICATIONS FOR CONIFER RELEASE IN THE EASTERN UNITED STATES

To release Spruce, Fir, Red pine, and White pine from competing hardwoods such as Red maple, Sugar maple, Striped maple, Alder, Birch (white, yellow, and grey), Aspen, Ash, Pin cherry, and Rubus spp. and perennial and annual broadleaf weeds, use this product at rates of 1.5 to 3.0 quarts per acre alone or plus 2,4-D amine or low volatile ester to provide no more than 4 pounds acid equivalent per acre from both products. Applications should be made in late summer or early fall after conifers have formed their overwintering buds and hardwoods are in full leaf and prior to autumn coloration.

Note: Sprays may cause discolored needles and temporary growth suppression of some conifers, but they should recover and grow normally.

BROADCAST APPLICATIONS FOR CONIFER RELEASE IN THE LAKE STATES REGION

To release Spruce, Fir and Red pine from competing hardwoods such as Aspen, Birch, Maple, Cherry, Willow, Oak, Hazel, and Rubus spp. and Perennial and annual broadleaf weeds, use this product at rates of 1.5 to 3.0 quarts per acre. Applications should be made in late summer or early fall after conifers have formed their overwintering buds and hardwoods are in full leaf and prior to autumn coloration.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store above 28°F or agitate before use.

PESTICIDE DISPOSAL: Open dumping is prohibited. If container is damaged or if pesticide has leaked, contain all spillage. Absorb and clean up all spilled material with granules or sand. Place in a closed, labeled container for proper disposal. Improper disposal of excess pesticide, spray mixtures, or rinsate is a violation of Federal law and may contaminate ground water. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA regional office for guidance.

CONTAINER DISPOSAL: Triple rinse (or equivalent), adding rinsate to spray tank. 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.

CONTAINER DISPOSAL FOR REFILLABLE CONTAINERS: Close all openings which have been opened during use and replace all caps. Contact Nufarm America's Customer Service Department at 1-708-754-3330, to arrange for return of the empty refillable container.

WARRANTY

Seller warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label when used in accordance with directions under normal conditions of use, but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, expressed or implied, extends to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to seller, and buyer and the limit of liability of any such use. The exclusive remedy of user or buyer and the limit of liability of Nufarm Americas Inc. is the purchase price paid for the quantity of product involved.

(RV011403A)

Patron and Riverdale are registered trademarks of Nufarm Americas Inc.

Tahoe is a trademark of Nufarm Americas Inc.

Microfoil is a trademark of Aventis CropScience

Arsenal is a registered trademark of American Cyanamid Company.

Escort is a registered trademarks of E.I. du Pont de Nemours and Co.

Accord and Roundup are registered trademarks of Monsanto Co.

VID 11.23.04