4704-90	06-2	9-2.0.11					
UNITED STATES	U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs	EPA Registration Number:	Date of Issuance:				
AURONIA A PROTECTION	Registration Division (7504P) Ariel Rios Building 1200 Pennsylvania Ave., NW Washington, D.C. 20460	34704-905	JUN 29 2011				
	NOTICE OF PESTICIDE:	Term of Issuance:	Unconditional				
	<u>X</u> Reregistration	Name of Pesticide F	Name of Pesticide Product:				
	(under FIFRA, as amended)		Chop Herbicide				
lame and Address	s of Registrant (include ZIP Code):						
P.O. Box 1286 Greeley, CO 80	1632-1286	s redistration must be sub	mitted to and accented by the				
On the basis of informa iungicide and Rodentic incer to protect health a iccordance with the Ac he registrant a right to EPA received a under the author amended. With Decision (RED) above. This acti Fungicide, and he need for cor ime to maintain Submit one (1) accepted labels	tion furnished by the registrant, the above named pesticide is here cide Act. Registration is in no way to be construed as an endorsem and the environment, the Administrator, on his motion, may at any t. The acceptance of any name in connection with the registration exclusive use of the name or to its use if it has been covered by ot a label amendment request submitted on 06/2 prity of section 3(c)(5) of the Federal Insecticity of this accepted labeling, all requirements set for Imazapyr have been satisfied. Therefor ion is taken under the authority of section 4(g Rodenticide Act, as amended. Reregistration ntinual reassessment of pesticides. EPA main the registration of your product. copy of final printed labeling. Amended labe a. A copy of your label stamped "Accepted" is	by registered/reregistered ient or recommendation of time suspend or cancel th of a product under this Ac hers. 29/2011. EPA gra ide, Fungicide and forth in the Rereg re, EPA reregister g)(2)(c) of the Fec in under this section by require submiss eling will supersed s enclosed for you	under the Federal Insecticide, this product by the Agency. In e registration of a pesticide in ct is not to be construed as givin ants this request d Rodenticide Act, as gistation Eligibility rs the product listed deral Insecticide, on does not eliminate sion of data at any le all previously ur records. Products				
Signature of Approving	velve (12) months from the date of this Notice rs first, must bear the new revised label.	Date	ing of your label,				
Kable Bo Davis Product Manag Herbicide Branc	er 25	JUN	2 9 2011				

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EPA Form 8570-6

If you have any questions regarding this Notice, please contact Maggie Rudick at (703) 347-0257 or at rudick.maggie@epa.gov.



CHOP HERBICIDE

For Control of Vegetation on Forestry Sites.

ACTIVE INGREDIENT:							
Isopropylamine salt of Imazapyr (2-[4,5-dihydro-4-methyl-4-							
(1-methylethyl)-5-oxo-1 <i>H</i> -imidazol-2-yl]-3-pyridinecarboxylic acid)*		 		 	• • •	. 27.	.6%
OTHER INGREDIENTS	 	 		 		. 72	.4%
		TO 1	AL			100	.0%

*Equivalent to 22.6% (2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1*H*-imidazol-2yl]-3-pyridinecarboxylic acid) or 2 pounds acid per gallon.

U.S. Patent No. 4,798,619

KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCION

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

FIRST AID			
lf on skin	Take off contaminated clothing.		
or clothing:	 Rinse skin immediately with plenty of water for 15 to 20 minutes. 		
	Call a poison control center or doctor for treatment advice.		
If inhaled:	Move person to fresh air.		
	• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably		
	mouth-to-mouth, if possible.		
	Call a poison control center or doctor for further treatment advice.		
If in eyes:	 Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. 		
-	Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye.		
	Call a poison control center or doctor for further treatment advice.		
Have the pro	duct container or label with you when calling a poison control center or doctor or going for		
treatment			
FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-866-944-8565			

ACCEPTED JUN 29 2011 Trajer the Pederal Incesticide, Pharyletic, and Postsulickle Ast as amonded, for the portiolds resistored under BPA Rog. No. 34704-905

EPA REG. NO. 34704-905

EPA EST. NO. 34704-MS-001

NET CONTENTS 1 GAL. (3.78 L)

EXP 07/08

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if inhaled or absorbed through skin. Avoid breathing spray mist. Avoid contact with skin, eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Personal Protective Equipment (PPE):

Some materials that are chemical-resistant to this product are made of any waterproof material. If you want more options, follow the instructions for category A on an EPA chemical-resistant category selection chart. **Mixers, loaders, applicators, and other handlers must wear:**

- Long-sleeved shirt and long pants.
- · Shoes plus socks,
- Chemical resistant gloves (except for pilots).

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.

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

Users should:

USER SAFETY RECOMMENDATIONS

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

Engineering Controls

Pilots must use an enclosed cockpit that meet the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)].

PHYSICAL AND CHEMICAL HAZARDS

Spray solutions of Chop Herbicide should be mixed, stored, and applied only in stainless steel, fiberglass, plastic, and plastic-lined steel containers.

Do not mix, store, or apply Chop Herbicide or spray solutions of Chop Herbicide in unlined steel (except stainless steel) containers or spray tanks.

ENVIRONMENTAL HAZARDS

This product is toxic to plants. Drift and runoff may be hazardous to plants in water adjacent to treated areas.

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate. See Directions for Use for additional precautions and requirements.

DIRECTIONS FOR USE

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

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

DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI) or 48 hours. PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water, is:

- Coveralls,
- Shoes plus socks,
- · Chemical-resistant gloves made of any waterproof material,
- Protective eyewear.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard (WPS) 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 treated areas until sprays have dried.

Chop Herbicide must be used in accordance with the directions and restrictions in this label. Keep containers closed to avoid spills and contamination.

RESTRICTIONS

- Do not use on food or feed crops.
- Do not apply to the inside of ditches used to transport irrigation water. Keep from contact with fertilizers, insecticides, fungicides, and seeds to prevent unintentional exposure of desirable vegetation to Chop Herbicide.
- Do not apply or drain or flush equipment on or near sensitive desirable plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
- Do not use on Christmas trees.
- The use of treated waters on irrigated crops within 120 days of treatment is prohibited.

Thoroughly clean application equipment after use. Flush tank, pump, hoses, and boom with several changes of water after removing nozzle tips and screens (clean these parts separately).

PRODUCT INFORMATION

Chop Herbicide is an aqueous formulation that is readily mixable with water, diesel oil, or recommended seed oils and penetrating oils. For foliar applications, Chop Herbicide may be mixed with water as the spray carrier or an emulsion carrier may be prepared by mixing Chop Herbicide into water and then adding a suitable seed oil at 12 to 50%, by volume. Chop Herbicide is to be mixed with water or a penetrating oil and applied as a spray to cut stumps. Chop Herbicide should be mixed with a penetrating oil for application to the basal area of brush and trees. Adequate agitation should be maintained with all Chop Herbicide emulsion mixtures to prevent phase separation. Prior to actual tank mixing with other products, herbicides and carrier oils, compatibility testing in small containers is recommended.

Chop Herbicide is recommended for vegetation control in forestry sites. Roadsides contiguous with the treated area may be included.

Chop Herbicide is recommended for control of vegetation in forestry site preparation, in directed applications for conifer release and for mid-rotation release using understory broadcast applications.

Chop Herbicide is also recommended for the control of undesirable vegetation along non-irrigation ditch banks and for the establishment and maintenance of wildlife openings, except in the state of California. See use directions for CUT STUMP TREATMENTS, TREE INJECTION TREATMENTS, FRILL OR GIRDLE TREATMENTS, THINLINE BASAL AND STEM APPLICATIONS, LOW VOLUME BASAL BARK TREATMENTS and LOW VOLUME FOLIAR APPLICATIONS.

Chop Herbicide may be applied on forestry sites that contain areas of temporary surface water caused by the collection of water between planting beds, in equipment ruts, or in other depressions created by forest management activities, except in the states of California and New York. It is permissible to treat drainage ditches, intermittent drainage, intermittently flooded low lying sites, seasonally dry flood plains, and transitional areas between upland and lowland sites when no water is present, except in the states of California and New York. Only the edge of drainage ditches can be treated or drainage ditches that contain water. It is also permissible to treat marshes, swamps, and bogs after water has receded, as well as seasonally dry flood deltas, except in the states of California and New York.

Do not make applications to natural or man-made bodies of water such as lakes, reservoirs, ponds, streams, rivers and canals.

Symptomology:

Chop Herbicide is readily absorbed through foliage, bark and roots and is translocated rapidly throughout the plant, with accumulation in meristematic regions. Treated plants stop growing soon after herbicide application. Chlorosis first appears in the youngest leaf tissue. In perennials, the herbicide is translocated into the roots, thus preventing re-sprouting. Chlorosis and tissue necrosis may not be apparent in some species for several weeks after application. Woody plants, brush, and trees may not display the full extent of herbicide control until several months following application.

Spray Drift Requirements Aerial Applications:

- Applicators are required to use a Coarse or coarser droplet size (ASABE S572) or, if specifically using a spinning atomizer nozzle, applicators are required to use a volume mean diameter (VMD) of 385 microns or greater for release heights below 10 feet; Applicators are required to use a very coarse or coarser droplet size or, if specifically using a spinning atomizer nozzle, applicators are required to use a VMD of 475 microns or greater for release heights above 10 feet. Applicators must consider the effects of nozzle orientation and flight speed when determining droplet size.
- Applicators are required to use upwind swath displacement.
- The boom length must not exceed 60% of the wingspan or 90% of the rotor blade diameter to reduce spray drift.
- Applications with wind speeds less than 3 mph and with wind speeds greater than 10 mph are prohibited.
- Applications into temperature inversions are prohibited.

Ground Boom Applications:

- Applicators are required to use a nozzle height below 4 feet above the ground or plant canopy and coarse or coarser droplet size (ASABE S572) or, if specifically using a spinning atomizer nozzle, applicators are required to use a volume mean diameter (VMD) of 385 microns or greater.
- Applications with wind speeds greater than 10 mph are prohibited.
- Applications into temperature inversions are prohibited.

Applicators must follow the most restrictive use cautions to avoid drift hazards, including those found in this labeling as well as applicable state and local regulations and ordinances.

CONIFER SITE PREPARATION TREATMENTS

Chop Herbicide may be used to control labeled grasses, broadleaf weeds, vines and brambles, and woody brush and trees on forest sites in advance of regeneration for the following conifer crop species:

Crop Species	<u>Rate (FI Ozs/A)</u>
Loblolly Pine (<i>Pinus taeda</i>)	48.0 to 80.0
Loblolly X Pitch Hybrid	48.0 to 80.0
Longleaf Pine (<i>Pinus palustris</i>)	48.0 to 80.0
Shortleaf Pine (Pinus echinata)	48.0 to 80.0
Virginia Pine (<i>Pinus virginiana</i>)	48.0 to 80.0
Slash Pine (<i>Pinus elliottii</i>)	40.0 to 64.0
Douglas Fir (<i>Pseudotsuga menziesii</i>)	24.0 to 48.0
Incense Cedar (<i>Libocedrus decurrens</i>)	24.0 to 48.0
Larch (<i>Larix</i> spp.)	24.0 to 48.0
Western Red Cedar (Thuja plicata)	24.0 to 48.0
Western Hemlock (Tsuga heterophylla)	24.0 to 48.0
Coastal Redwood (Sequoia sempervirens)	24.0 to 48.0
California Red Fir (Abies magnifica)	24.0 to 40.0
California White Fir (<i>Abies concolor</i>)	24.0 to 40.0
Jack Pine (<i>Pinus banksiana</i>)	24.0 to 32.0
Lodgepole Pine (<i>Pinus contorta</i>)	24.0 to 32.0
Pitch Pine (<i>Pinus rigid</i> a)	24.0 to 32.0
Ponderosa Pine (<i>Pinus ponderosa</i>)	24.0 to 32.0
Red Pine (<i>Pinus Resinosa</i>) ²	24.0 to 32.0
Sugar Pine (Pinus lambertiana)	24.0 to 32.0
White Pine (<i>Pinus strobus</i>)	24.0 to 32.0
Black Spruce (<i>Picea mariana</i>)	24.0 to 32.0
Red Spruce (<i>Picea rubens</i>)	24.0 to 32.0
White Spruce (<i>Picea glauca</i>) ¹	24.0 to 32.0

- ¹ DO NOT plant seedlings of black spruce (*Picea mariana*) or white spruce (*Picea glauca*) on sites that have been site prepared with a broadcast application of Chop Herbicide or into the treated zone of spot or banded site preparation applications for three months following treatment or injury may occur.
- ² DO NOT plant seedlings of Red Pine (*Pinus resinosa*) on sites that have been site prepared with a broadcast application of Chop Herbicide or into the treated zone of spot or banded site preparation applications for six months following treatment or injury may occur.

Use the specified rate of Chop Herbicide per acre applied as a broadcast foliar spray for long-term control of labeled woody plants and residual control of herbaceous weeds. Within 4 to 6 weeks of treatment, grasses and other herbaceous weeds will be controlled and may provide fuel to facilitate a site preparation burn, if desired, to control conifers or other species tolerant to the herbicide.

For tracts to be planted with loblolly, loblolly x pitch hybrid, longleaf pine, shortleaf pine, Virginia pine and slash pine, Chop Herbicide may be applied at a rate of 64.0 fluid ounces per acre on areas that have little to no re-sprouting vegetation because of recent management activities such as harvesting, mechanical shearing, burning piling or bedding. Applications must be made after September 1.

MIXING AND APPLICATION INSTRUCTIONS FOR SITE PREPARATION

Apply the specified rate of Chop Herbicide per acre in 5.0 to 20.0 gallons total spray carrier for helicopter applications for 5.0 to 40.0 gallons total spray carrier for mechanical or backpack ground spray applications. Enhanced brownout for burning and improved control of brush and grasses may be obtained by application of Chop Herbicide in 12 to 50% oil; water (volume:volume) emulsion carrier. Methylated or ethylated seed oils containing at least 50%

esterified seed oil by volume are recommended. Mix Chop Herbicide into the water portion of the carrier thoroughly, then add the oil and mix thoroughly again to obtain a uniform emulsion. Use the higher label rates of Chop Herbicide and higher spray volumes when controlling particularly dense or multi-layered canopies of hardwood stands, or difficult to control species. Make applications during the growing season; beginning in the spring after full leaf expansion of the target weed or brush has occurred and complete applications before leaf drop in the fall.

Tank mixes may be necessary for chemical control of conifers and other species tolerant to Chop Herbicide in certain cases. Observe all precautions and restrictions on the product labels. Always follow the most restrictive label. Combinations with other products labeled for forest site preparation may kill certain plants such as legume's and blackberry which are desirable for wildlife habitat.

Do not plant seedlings of black spruce (*Picea mariana*) or white spruce (*Picea glauca*) on sites that have been site prepared with a broadcast application of Chop Herbicide or into the treated zone of spot or banded site preparation applications for three months following treatment or injury may occur.

HELICOPTER SPRAY EQUIPMENT

All precautions should be taken to minimize or eliminate spray drift. Applications should not be made under gusty conditions. The use of controlled droplet booms and nozzle configurations is recommended.

IMPORTANT: Do not make applications by fixed wing aircraft. Maintain adequate buffer zones. Thoroughly clean application and mixing equipment, including landing gear, immediately after use. Prolonged exposure of this product to uncoated steel (except stainless steel) surfaces may result in corrosion and failure of the exposed part.

HARDWOOD SITE PREPARATION TREATMENTS

For site preparation prior to planting hardwood species in the southeast and gulf coast states (Virginia to Texas), use Chop Herbicide at a rate of 48.0 fluid ounces per acre and spray before the end of July. Application in an emulsion carrier with a minimum of 12% oil is recommended. Do not plant hardwood seedlings before January of the year following site preparation or injury may occur.

DIRECTED FOLIAR APPLICATIONS FOR CONIFER RELEASE

Chop Herbicide may be applied as a directed spray using water or oil emulsion carrier for control and suppression of labeled brush and weed species. Directed spray applications may be made using low carrier volumes (10.0 gallons of total spray per acre or less) in labeled conifer stands of all ages by targeting the unwanted vegetation and avoiding direct application to the conifer. Ensure that the maximum labeled rates per acre listed for the conifer species are not exceeded.

Use directed foliar applications of Chop Herbicide for release of the following conifers from hardwood competition:

Crop Species	Rate (FI Ozs/A)
Loblolly Pine (Pinus taeda)	24.0 to 40.0
Loblolly x Pitch Hybrid	24.0 to 40.0
Virginia Pine (<i>Pinus virginiana</i>)	24.0 to 40.0
Longleaf Pine (Pinus palustris)	24.0 to 32.0
Pitch Pine (<i>Pinus rigida</i>)	24.0 to 32.0
Shortleaf Pine (<i>Pinus echinata</i>)	24.0 to 32.0
Slash Pine (<i>Pinus elliottii</i>)	24.0 to 32.0
Coast Redwood (Sequoia sempervirens)	16.0 to 32.0
Incense Cedar (<i>Libocedrus decurrens</i>)	16.0 to 32.0
White Pine (Pinus strobus)	16.0 to 32.0
Lodgepole Pine (Pinus contorta)	16.0 to 24.0
Western Red Cedar (Thuia plicata)	16.0 to 32.0

Crop Species	Rate (FI Ozs/A)				
Douglas Fir (Pseudotsuga menziesii)	16.0 to 24.0				
Jack Pine (<i>Pinus banksiana</i>)	12.0 to 24.0				
Black Spruce (Picea mariana)	12.0 to 24.0				
Red Spruce (<i>Picea rubens</i>)	12.0 to 24.0				
White Spruce (Picea glauća)	12.0 to 24.0				

For applications directed to the foliage of undesirable brush mix 2 to 10% Chop Herbicide in water. For brush species with thick leaf cuticles or difficult to control species use oil emulsion carrier containing 12 to 50%, by volume, recommended oil diluent. Apply the spray solution or emulsion to at least two-thirds of each hardwood crown using backpack sprayers or hand held equipment. Do not spray to the point of runoff and avoid spraying the conifers for best results. For low volume foliar applications to control big leaf maple, use a 5% by volume Chop Herbicide solution or emulsion.

Some minor conifer growth inhibition may be observed when release treatments are made during periods of active conifer growth. To minimize potential conifer height growth inhibition, release treatments may be made late in the growing season after formation of final conifer resting buds. To prevent possibility of conifer injury, do not apply Chop Herbicide when conifers are under stress from drought, diseases, animal or winter injury, or other stresses reducing conifer vigor.

Injury may occur to non-target or desirable hardwoods if they extend from the same root system as treated stems, or their root systems are grafted to those of the treated tree, or if their roots extend into the soil near treated trees.

BAG AND BROADCAST APPLICATIONS FOR CONIFER RELEASE

In Douglas-fir and Ponderosa pine stands, broadcast applications of Chop Herbicide up to 32.0 fluid ounces per acre are permissible when the trees are covered by bags prior to the application. The bags must prevent the spray mix from contacting the conifer foliage. For improved control of brush species, particularly evergreens, add a suitable seed oil at 5 to 12% by volume. On sites with coarse textured soils (e.g. decomposed granite, pumice, sandy or rocky sites) or low levels of soil organic matter (5% or less) significant conifer growth inhibition and mortality is possible. Do not use this treatment on these types of sites if conifer growth inhibition and mortality cannot be tolerated.

LATE ROTATION VEGETATION CONTROL IN WESTERN CONIFERS

In California, the Pacific Northwest and Inland Northwest, broadcast aerial applications of Chop Herbicide up to 48.0 fluid ounces per acre are permissible in conifer stands that are targeted for harvesting the year following treatment. Use a minimum spray volume of 15.0 gallons per acre. For improved control of brush species, particularly evergreens, add a suitable seed oil at 5 to 12% by volume. Significant conifer injury or mortality must be expected. Do not use this treatment if conifer injury or mortality cannot be tolerated.

UNDERSTORY BROADCAST APPLICATIONS FOR MID-ROTATION RELEASE

Chop Herbicide may be applied as a broadcast application below the conifer canopy to control understory brush and suppress trees for labeled species. Ground spray machinery or hand held equipment may be used to broadcast Chop Herbicide in water or oil emulsion carrier below the crop tree canopy in a manner as to minimize spray contact by the live crown of crop trees.

Ensure that maximum labeled rates per acre listed for crop species below are not exceeded.

<u>Crop Species</u>	<u>Maximum Rate (FI Ozs/A)</u>
Loblolly Pine (Pinus taeda)	64.0
Loblolly x Pitch Hybrid	64.0
Virginia Pine (<i>Pinus virginiana</i>)	64.0
Longleaf Pine (Pinus palustris)	32.0
Pitch Pine (Pinus rigida)	32.0
Shortleaf Pine (<i>Pinus echinata</i>)	32.0
Slash Pine (<i>Pinus elliottii</i>)	32.0

CUT STUMP TREATMENTS

Mix 8.0 to 16.0 fluid ounces of Chop Herbicide in one gallon of water^{*}, diesel oil, or a penetrating oil. Chop Herbicide may be tankmixed with Garlon® 3A, Garlon 4, Tordon® K, Escort® or Roundup® to control labeled species. Spray or brush the Chop Herbicide solution onto the cambium area of the freshly cut stump surface. Insure that the Chop Herbicide solution thoroughly wets the cambium area (the wood next to the bark) of the stump. The use of a surfactant or penetrating agent may improve uptake through partially callused cambiums. Applications can be made anytime during the year except during periods of heavy sap flow in the spring. Do not over apply causing puddling.

*Note: Use water as a diluent only when temperatures are sufficient to prevent freezing or add antifreeze (ethylene glycol) according to label directions to prevent freezing.

TREE INJECTION TREATMENTS

No Worker Protection Standard worker entry restrictions or worker notification requirements apply when this product is directly injected into agricultural plants.

Mix 8.0 to 12.0 fluid ounces of Chop Herbicide in one gallon of water*. Using standard injection equipment, apply 1.0 ml of Chop Herbicide solution at each injection site around the tree with no more than 1 inch intervals between cut edges. Insure that the injector completely penetrates the bark at each site.

*Note: Use water as a diluent only when temperatures are sufficient to prevent freezing or add antifreeze (ethylene glycol) according to label directions to prevent freezing.

FRILL OR GIRDLE TREATMENTS

Mix 8.0 to 12.0 fluid ounces of Chop Herbicide in one gallon of water*, diesel oil or a penetrating oil.

Using a hatchet, machete, or similar tool, make cuts through the bark and completely around the tree with no more than 2 inch intervals between cut edges. Spray or brush the Chop Herbicide solution into each cut until thoroughly wet.

*Note: Use water as a diluent only when temperatures are sufficient to prevent freezing or add antifreeze (ethylene glycol) according to label directions to prevent freezing.

THINLINE BASAL AND STEM APPLICATIONS

Chop Herbicide may be applied as a thinline basal or arcing application to the stems of susceptible species such as big leaf maple (*Acer macrophyllum*), willow (*Salix* spp.) and Eucalyptus (*Eucalyptus* spp.) with a stem ground line diameter of 3 inches or less. Mix 24.0 to 48.0 fluid ounces of Chop Herbicide in one gallon of diesel oil or penetrating oil. Maintain uniform mixtures with frequent agitation. Direct a thin line of the spray solution to the stems beginning a few feet from the ground and descending toward the base of the tree making a zig-zag motion. DO NOT over apply causing puddling.

LOW VOLUME BASAL BARK TREATMENTS

Mix 8.0 to 12.0 fluid ounces of Chop Herbicide in one gallon of diesel oil or a penetrating oil. To control mixed brush species with up to 4 inch stem diameter or breast height, spray to wet the lower 12 to 18 inches of the stem with the Chop Herbicide oil mixture (including the root collar area). Do not over apply causing dripping or puddling. Maintain uniform mixtures with frequent agitation.

LOW VOLUME FOLIAR APPLICATIONS

Chop Herbicide may be applied as a low volume foliar application. Mix 3 to 5% Chop Herbicide in water and adjuvant or in a penetrating oil. For small brush spray down on the crown to cover approximately 70% of the plant foliage. For larger brush insure coverage on as much of the crown as possible and spray at least two sides of the plant. May be tank-mixed with other labeled herbicides. Use a tank mix of 3 to 5% Chop Herbicide plus 15 to 20% Garlon 4 in basal oil to control black locust, honey locust, hackberry, elms and other species listed on manufacturer's labels. Use the higher rate of Chop Herbicide (5%) in areas containing sassafras, oak, hickory, cherry, and maples or in the southern 2/3's of the U.S. A tank-mix of 3% Chop Herbicide + Garlon 4 or Chop Herbicide is effective in the Northeastern U.S.

SPRAY SOLUTION MIXING GUIDE FOR LOW VOLUME FOLIAR APPLICATIONS

SOLUTION BEING PREPARED		DESIRED CONCENTR	ATION (fluid volum	e)	
	Chop Herbicide		Garlon 4		
	3%	5%	15%	20%	
1.0 gal	3.8 fl ozs	6.4 fl ozs	19.2 fl ozs	25.6 fl ozs	
3.0 gals	11.5 fl ozs	19.2 fl ozs	57.6 fl ozs	76.8 fl ozs	
4.0 gals	15.4 fl ozs	25.6 fl ozs	76.8 fl ozs	102.4 fl ozs	
5.0 gals	19.2 fl ozs	32.0 fl ozs	96.0 fl ozs	1.0 gal	
50.0 gals	1.5 gals	2.5 gals	7.5 gals	10.0 gals	
100 gals	3.0 gals	5.0 gals	15.0 gals	20.0 gals	

INVERT EMULSIONS

Chop Herbicide can be applied as an invert emulsion carrier. The carrier is a thick invert water-in-oil spray emulsion designed to minimize spray drift and spray run-off, resulting in more herbicide on the target foliage. The spray emulsion may be formed in a single tank (batch mixing) or injected (in-line mixing). Consult the invert chemical label for proper mixing directions. Do not exceed 3.0 quarts per acre of Chop Herbicide.

WEEDS CONTROLLED

Chop Herbicide will provide postemergence control and some residual control of the following target vegetation species. Degree of control is both species and rate dependent.

GRASSES

The species of annual and perennial grasses controlled by Chop Herbicide include the following: Annual bluegrass (*Poa annua*) Bahiagrass (*Paspalum notatum*) Barnyardgrass (*Echinochloa crus-galli*) Beardgrass (Andropogon spp.) Bermudagrass (Cynodon dactylon) Big bluestem (Andropogon gerardii) Broadleaf signalgrass (*Brachiaria platyphylla*) Canada bluegrass (Poa compressa) Cattail (Typha spp.) Cheat (Bromus secalinus) Cogongrass (Imperata cylindrica)¹ Crabgrass (*Digitaria* spp.) Crowfootgrass (*Dactyloctenium aegyptium*) Dallisgrass (*Paspalum dilatatum*) Downy brome (Bromus tectorum) Fall panicum (*Panicum dichotomiflorum*) Feathertop (Pennisetum villosum) Fescue (*Festuca* spp.) Foxtail (Setaria spp.) Giant reed (Arundo donax) Goosegrass (Eleusine indica) Guineagrass (Panicum maximum) Italian ryegrass (*Lolium multiflorum*) Itchgrass (*Rottboellia exaltata*) Johnsongrass (*Sorghum halepense*)

Junglerice (*Echinochloa colonum*) Kentucky bluegrass (Poa pratensis) Lovegrass (*Eragrostis* spp.) Orchardgrass (*Dactylis glomerata*) Panicum spp. Paragrass (Brachiaria mutica) Phragmites (Phragmites australis) Pinegrass (Calamagrostis rubescens)* Prairie cordgrass (*Spartina pectinata*) Prairie threeawn (Aristida oligantha) Quackgrass (*Agropyron repens*) Reed canary grass (*Phalaris arundinacea*) Saltgrass (Distichlis stricta) Sand dropseed (Sporobolus cryptandrus) Sandbur (*Cenchrus* spp.) Smooth brome (*Bromus inermis*) Sprangletop (*Leptochloa* spp.) Timothy (Phleum pratense) Torpedograss (*Panicum repens*) Vaseygrass (Paspalum urvillei) Wild barley (Hordeum spp.) Wild oats (Avena fatua) Wirestem muhly (Muhlenbergia frondosa) Witchgrass (Panicum capillare) Woolly cupgrass (*Eriochloa villosa*)

*Chop Herbicide is not registered for use on pinegrass in California. ¹Use minimum of 48.0 fl ozs/A.

BROADLEAF WEEDS

The species of annual and perennial broadleaf weeds controlled by Chop Herbicide include the following: Arrowwood (*Pluchea sericea*) Fiddleneck (Amsinckia intermedia) Broom snakeweed (Gutierrezia sarothrae) Filaree (*Erodium* spp.) Bull Thistle (*Cirsium vulgare*) Fleabane (*Erigeron* spp.) Burclover (*Medicago* spp.) Giant ragweed (Ambrosia trifida) Goldenrod (Solidago spp.) Burdock (Arctium spp.) Camphorweed (Heterotheca subaxillaris) Gray rabbitbrush (Chrysothamnus nauseosus) Carolina geranium (*Geranium carolinianum*) Henbit (*Lamium aplexicaule*) Carpetweed (*Mullugo verticillata*) Hoary vervain (Verbena stricta) Chickweed, mouseear (*Cerastium vulgatum*) Horseweed (Conyza canadensis) Clover (*Trifolium* spp.) Indian mustard (Brassica juncea) Cocklebur (Xanthium strumarium) Japanese bamboo/knotweed (*Polygonum cuspidatum*) Common chickweed (Stellaria media) Knotweed, prostrate (Polygonum aviculare) Common ragweed (Ambrosia artemisiifolia) Kochia (Kochia scoparia) Cudweed (*Gnaphalium* spp.) Lambsquarters (*Chenopodium album*) Dandelion (Taraxacum officinale) Little mallow (*Malva parviflora*) Milkweed (Asclepias spp.) Desert camelthorn (*Alhagi pseudalhagi*) Diffuse knapweed (*Centaurea diffusa*) Miners lettuce (*Montia perfoliata*) Dock (*Rumex* spp.) Mullein (*Verbascum* spp.) Dogfennel (*Eupatorium capillifolium*) Nettleleaf goosefoot (Chenopodium murale)

Broadleaf Weeds cont'd .:

Oxeve daisy (*Chrvsanthemum leucanthemum*) Pepperweed (*Lepidium* spp.) Pigweed (Amaranthus spp.) Plantain (*Plantago* spp.) Pokeweed (*Phytolacca americana*) Primrose (*Denothera kunthiana*) Puncturevine (Tribulus terrestris) Purple loosestrife (Lythrum salicaria) Purslane (Portulaca spp.) Pusley, Florida (Richardia scabra) Rocket, London (Sisymbrium irio) Rush skeletonweed (Chondrilla juncea) Russian knapweed (*Centaurea repens*) Russian thistle (Salsola kali) Saltbush (Atriplex spp.) Shepherd's purse (Capsella bursa-pastoris) Silverleaf nightshade (Solanum elaeagnifolium) Smartweed (*Polygonum* spp.)

Sorrell (*Rumex* spp.) Sowthistle (Sonchus spp.) Spurge, annual (Euphorbia spp.) Stinging nettle (Urtica dioica) Sunflower (*Helianthus* spp.) Sweet clover (Melilotus spp.) Tansymustard (*Descurainia pinnata*) Texas thistle (*Cirsium texanum*) Velvetleaf (Abutilon theophrasti) Western ragweed (Ambrosia psilostachva) Wild carrot (*Daucus carota*) Wild lettuce (Lactuca spp.) Wild parsnip (Pastinaca sativa) Wild turnip (Brassica campestris) Woollyleaf bursage (Ambrosia grav) Yellow starthistle (*Centaurea solstitalis*) Yellow woodsorrel (Oxalis stricta)

VINES AND BRAMBLES

The species of vines and brambles controlled by Chop Herbicide include the following:Field bindweed (Convolvulus arvensis)Virginia creeper (Parthenocissus quinquefolia)Hedge bindweed (Calystegia sequium)Wild buckwheat (Polygonum convolvulus)Honeysuckle (Lonicera spp.) 1Wild grape (Vitis spp.)Morningglory (Ipomoea spp.)Wild rose (Rosa spp.) 1Poison ivy (Rhus radicans)Including Multiflora rose (Rosa multiflora)Redvine (Brunnichia cirrhosa)Macartney rose (Rosa bracteata)Trupetcreeper (Campsis radicans)Ketter (Constant)

¹Use higher labeled rates.

WOODY BRUSH AND TREES

The species of wood brush and trees controlled by Chop	Herbicide include the following:
Alder (Alnus spp.)	Chinese tallow-tree (<i>Sapium sebiferum</i>)
American beech (Fagus grandifolia)	Chinquapin (Castanopsis chrysophylla) ⁴
Ash (<i>Fraxinus</i> spp.) ¹	Cottonwood (<i>Populus</i> spp.)
Aspen (<i>Populus</i> spp.)	Cypress (<i>Taxodium</i> spp.)
Australian pine (<i>Casuarina equisetifolia</i>) ⁵	Dogwood (<i>Cornus</i> spp.) ¹
Autumn olive (Elaeagnus umbellata)	Elderberry (Sambucus spp.) ⁵
Bald cypress (<i>Taxodium distichum</i>) ⁴	Elm (<i>Ulmus</i>) ⁵
Bigleaf maple (Acer macrophyllum) ¹	Eucalyptus (<i>Eucalyptus</i> spp.)
Birch (<i>Betula</i> spp.)	Hawthorn (<i>Crataegus</i> spp.)
Black locust (<i>Robinia pseudoacacia</i>) ⁵	Hazel (<i>Corylus cornuta</i>) ⁵
Black oak (<i>Quercus kelloggii</i>)	Hickory (<i>Carya</i> spp.) ¹
Blackgum (Nyssa sylvatica) ²	Holly (<i>llex</i> spp.)
Boxelder (<i>Acer negundo</i>)	Including Gallberry (<i>llex glabra</i>)
Brazillian peppertree (Schinus terebinthifolius)	Tall gallberry (<i>llex coriacea</i>)
Ceanothis (<i>Ceanothis</i> spp.)	Yaupon (<i>Ilex vomitoria</i>)
Cherry (<i>Prunus</i> spp.) ^{1,2}	Honeylocust (Gleditsia tricanthos spp.) 5
Chinaberry (Melia azedarach)	Huckleberry (Gaylussacia spp.)

Woody Brush and Trees cont'd.:

Lyonia spp.

Including Fetterbush (Lvonia lucida) Staggerbush (Lyonia mariana) Madrone (Arbutus 'menziesii) Manzanita, greenleaf (Arctostaphylos patula)⁴ Maple (Acer spp.) Melaleuca (Melaleuca quinquenervia) Mulberry (*Morus* spp.)^{1,3} Oak (*Quercus* spp.)^{1,3} Persimmon (Diospyros virginiana)² Poison oak (Rhus diversiloba) Popcorn-tree (Sapium sebiferum) Poplar (Populus spp.)² Privet (Ligustrum vulgare) Red alder (Alnus rubra) Red maple (*Acer rubrum*) Saltcedar (Tamarix pentandra) Sassafras (Sassafras albidum)

Scotch broom (Cvtisus scoparius) 5 Sourwood (Oxydendrum arboretum)² Sumac (*Rhus* spp.) Sweetbay magnolia (Magnolia virginiana) 1,4 Sweetgum (Liquidambar straciflua) Sycamore (Platanus occidentalis) Tanoak (*Lithocarpus densiflorus*) ^{1,4,5} TiTi (Cyrilla racemiflora) 1,4,6 Tree of heaven (Ailanthus altissima) Vaccinium spp. Including Blueberry (Vaccinium spp.) Sparkleberry (*Vaccinium arboreum*) Waxmyrtle (*Myrica californica*) ^{1,4} (Myrica cerifera) 1,4 Willow (Salix spp.) Yellow poplar (*Liriodendron tulipifera*)¹

- ¹ Use higher labeled rates.
- ² Best control with applications prior to formation of fall leaf color.
- ³ The degree of control may be species dependent.
- ⁴ Oil emulsion carrier is recommended.
- ⁵ Tankmix with Garlon 4 as a basal or cut stump treatment.
- ⁶ Suppression only.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. **PESTICIDE STORAGE:** Do not store below 10 °F.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL:

Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact The Agricultural Container Recycling Council (ACRC) at www.acrecycle.org. If not recycled, then puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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

For packages up to 5 gallons: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

For packages greater than 5 gallons and less than 56 gallons: Triple rinse as follows: Empty the remaining

Storage & Disposal cont'd.:

contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

For packages greater than 56 gallons: To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

For refillable containers: Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. **For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC –**

1-800-424-9300.

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