



**SPECIMEN LABEL**  
REDUCED TO 75%

# ESTERON<sup>\*</sup>

## BRUSH KILLER

### Low-Volatile Brush and Weed Herbicide

For the Control of Most Kinds of Unwanted Trees and Brush, as Well as Annual and Perennial Broadleaf Weeds on Right of Ways, Forest Planting and Industrial Sites, Pastures and Rangelands, and Non Cropland Areas by Aircraft or Ground Spraying

**ACTIVE INGREDIENTS:**

2,4-Dichlorophenoxyacetic Acid,  
Propylene Glycol  
Butyl Ether Esters ..... 36.0%

2,4,5-Trichlorophenoxyacetic Acid,  
Propylene Glycol  
Butyl Ether Esters ..... 34.1%

**INERT INGREDIENTS:** ..... 29.9%

2,4-D Acid Equivalent 22.2% —

2 pounds per gallon

2,4,5-T Acid Equivalent 22.2% —

2 pounds per gallon

E.P.A. Registration No. 464-204-AA

E.P.A. Est. 464-MI-1

### CAUTION

**KEEP OUT OF THE REACH OF CHILDREN  
HARMFUL IF SWALLOWED  
MAY CAUSE IRRITATION**

Avoid Contact with Eyes, Skin and Clothing

### AGRICULTURAL CHEMICAL

**Do Not Ship or Store with  
Food, Feeds, or Clothing**

**PRECAUCION:** AL USUARIO (translated to the user), no use este producto hasta que la etiqueta haya sido explicada completamente.

**TRANSLATION (TO THE USER):** If you cannot read English, do not use this product until the label has been fully explained to you.

## 18.9 L / 5 GAL

86-1066 PRINTED IN U.S.A. IN OCTOBER, 1975

REPLACES SPECIMEN LABEL 86-1066 PRINTED IN OCTOBER, 1974

DISCARD PREVIOUS SPECIMEN LABELS

REVISIONS INCLUDE: (1) USE ALONG DRAINAGE DITCH BANKS DELETED.



# ESTERON\* BRUSH KILLER

Contains Propylene Glycol Butyl Ether Esters of 2,4-D and 2,4,5-T... Total Acid Equivalent: 4 pounds per gallon

**SPECIMEN LABEL**  
(BACK)  
REDUCED TO 75%

### FOR TREE, BRUSH AND WEED CONTROL

**ESTERON Brush Killer** is recommended for control of most species of unwanted woody plants, as well as annual and perennial broadleaf weeds, growing on industrial sites, in power, telephone and pipeline right of ways, along highways, railroads, fuel breaks and fence rows, in farmyards, rangeland, pastures and forest planting sites, and for conifer release.

**Woody Species Controlled:** alder, aspen, bigleaf maple, birch, blackberry, boxelder, buckbrush, catalpa, chamise, chokecherry, coastdogwood, coyotebrush, crabapple, dogwood, elder, elderberry, elm, Hawthorn, honeysuckle, kudzu, locust, manzanita, oaks, orangeorange, persimmon, poison ivy, pricklypear, cactus, yucca, sumac, sweetgum, sycamore, tulip, yucca, wild cherry, wild grape, wild rose, willow and many others.

**Weeds Controlled:** bitterweed, broomweed, croton, dandelion, docks, goldenrod, kochia, lambs-ear, locoweed, lupines, marshelder, muskthistle, plantains, ragweeds, vetch, wild carrot and many others.

### USE DIRECTIONS

Foliage sprays should be applied during warm weather and when brush and weeds are actively growing. Application under drought conditions often will give poor results. Use low spray pressures to minimize spray drift. Do not apply ESTERON Brush Killer where spray drift may contact nearby susceptible crops or other desirable plants or may contaminate water intended for irrigation or domestic use. Read and follow all Use Precautions given on this label. Do not include adjuvants in sprays unless recommended on this label.

**NOTE:** If there are uncertainties concerning special local use situations, consult local Extension Service or University Specialists for advice.

### PREPARING THE SPRAY

**ESTERON Brush Killer** in water or oil-water sprays forms an emulsion, not a solution, and separation may occur unless the spray mixture is agitated continuously. Mechanical agitation is recommended. When mixed with oil only a solution is formed, and after complete mixing, further agitation is not needed.

**NOTE:** Where oil is recommended, use diesel oil, No. 1 or 2 fuel oil or kerosene.

**OIL SPRAY:** Add ESTERON Brush Killer to the required amount of oil in the spray tank or mixing tank and mix thoroughly. Do not let any water or oil-water mixture get into the product or the product oil mix, as a gel may be formed.

**WATER SPRAY:** Fill the spray tank about half full with clean water. Then slowly add the ESTERON Brush Killer and complete filling the tank with the agitator running. Mix thoroughly and continue agitation while spraying.

**OIL-WATER MIXTURE SPRAY:** With vigorous agitation, fill gallon of ESTERON Brush Killer with up to 10 gallons of oil in 100 gallons of spray mixture. First premix the ESTERON Brush Killer and oil in a separate container. Do not allow any water or miscible cutting water to get into the ESTERON Brush Killer 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. If the premix is put in the tank without any water, the first water added may form a thick "inset" (water in oil emulsion) which will be hard to break. An alternate procedure: the oil may be added immediately after the ESTERON Brush Killer is mixed in the water, and the spray tank is being filled, but highly vigorous mechanical agitation is required and a poorer emulsion may be formed. The premix method is preferred. With either method, agitation in the spray tank should be continued until spray application.

### GROUND APPLICATION DIRECTIONS

**INDUSTRIAL AND NON-CROPLAND WEED CONTROL INCLUDING FORESTRY USES**

**Right-of-Ways and Forest Site Preparation Foliage Treatment:** For mixed brush, use 3 to 4 quarts of ESTERON Brush Killer in 100 gallons of water and apply as a full coverage spray, wetting all plant parts including leaves, shoots, stems and bark. This application usually requires 200 to 400 gallons of spray per acre depending on height and density of the brush.

Apply to actively growing up to 6 to 8 feet tall after foliage is well developed and when the plants are actively growing. Under favorable growing conditions, warm temperatures and adequate soil moisture, spraying can be effective throughout the growing season and up to 3 weeks before fall frost. Spraying under adverse conditions (high temperatures, drought, hot dry weather or after leaves have lost their green color) will not give the result in satisfactory control. Use of oil (see note) up to 10 gallons per 100 gallons of spray may improve control under such conditions. Brush taller than 6 to 8 feet can be sprayed successfully but in most cases basal bark or stump treatment is recommended as the better alternative. Avoid drift of spray from the area being treated. To avoid spray drift, when using a spray gun, use only enough pressure to obtain coverage up to 15 feet off the gun, and avoid spraying higher than necessary.

**Basal Bark Treatment:** Brush and small trees can be controlled by spraying the basal 12 to 15 inches of stems and trunks. Use a solution of 4 gallons of ESTERON Brush Killer in 100 gallons of oil (1 pint in 3 gallons of oil) and apply the mixture by knapsack or power equipment to thoroughly wet the indicated area, including the root collar. Old or rough

brush requires more spray volume than young or smooth bark. As with the basal portions of the brush are treated on a spot basis, the total amount of spray applied should not exceed 100 gallons per acre. Use a low pressure coarse spray to avoid spray drift. Apply at any time of year except when water, snow or ice prevents spraying to the ground line. On certain hard to kill species such as maple and ash, better control will be obtained using ESTERON 245 or TORDON 155 in accordance with their label directions.

**Powered Knapsack Basal Treatment:** Mix 8 to 14 gallons of ESTERON Brush Killer in oil to make 100 gallons of spray solution. Apply with a portable knapsack mistblower to lower brush stems. Total coverage of stems and root collars is essential for best results. This should require no more than 30 gallons of spray solution per acre. Run knapsack mistblower at 1/2 to 1 1/2 throttle for best spray delivery and brush coverage. Use a basal nozzle attachment for maximum drift control and do not raise spray nozzle above horizontal position.

**Modified Basal or Dormant Cone Treatment:** For mixed brush, use 2 to 2 1/2 gallons of ESTERON Brush Killer in 100 gallons of oil. Apply as a drench to the base of the stems and also spray the lower 1/2 of the brush tops to run off. With root suckering species such as locust, persimmon, sassafras and sumac, also spray the ground area so that small sprouts that may not be readily visible are treated. Spray at any time of the year but preferably after most of the foliage has fallen since this is not primarily a foliage treatment. Dormant brush of average density and 4 to 6 feet tall may require 150 to 200 gallons of spray per acre for proper coverage.

**Frill Treatment:** Use a solution of 3 gallons of ESTERON Brush Killer in 100 gallons of oil (1 pint in 4 gallons oil). For trees usually 3 inches or larger in diameter, make a single back grille or frill of overlapping axe cuts or notches completely around the tree as close to the ground as convenient. Spray or pour in as much of the spray mixture as the frilled area will hold without run off.

**Stump and Stub Treatment:** Use a solution of 4 to 6 gallons of ESTERON Brush Killer in 100 gallons of oil (1 to 1 1/2 pints in 3 gallons oil) mixed thoroughly. All the bark and exposed roots as well as the cut surfaces should be sprayed until run down or run off to the ground line is noticeable. Old or rough bark requires more spray volume than young or smooth bark. Apply at any time of the year except when water, snow or ice prevents spraying to the ground line. For best results, treat freshly cut stumps and stubs.

### RANGELAND AND PASTURE WEED CONTROL

(See grazing note under Use Precautions.)

**General Weed Control:** Use 2 quarts of ESTERON Brush Killer per acre in the amount of water needed for uniform coverage to control bitterweed, broomweed, cotton stalks, kochia, lambs-ear, locoweed, lupines, marshelder, muskthistle and other broadleaf weeds. For best control, the weeds should be young and growing actively at the time of application.

**Control of Chaparral Species:** To control chamise, manzanita, coast sage, ceanothus, coyotebrush and others, apply 2 to 4 quarts of ESTERON Brush Killer in 15 to 30 gallons of water per acre. A gallon of oil per acre may be included for added effectiveness. For best control, the brush must be fully leafed out and growing actively when sprayed. Retreatment may be needed in subsequent years.

**Spot Treatment for Pricklypear Cactus:** Use 1 pint of ESTERON Brush Killer in 3 gallons of oil. Spray both sides of pads as well as joints and trunk during the hot summer period.

**For Other Brush and Perennial Weeds:** Use 1/2 pint of ESTERON Brush Killer in 4 gallons of water and spray to wet foliage. When treating brush also wet the shoots, stems and bark.

### AIR APPLICATION DIRECTIONS

**INDUSTRIAL AND NON-CROPLAND WEED CONTROL INCLUDING FORESTRY USES**

**Right-of-Ways and Forest Site Preparation:** For mixed brush, use 2 to 4 gallons of ESTERON Brush Killer in 10 to 30 gallons of water per acre and apply as a uniform spray to target areas. The inclusion of 1 to 2 gallons of oil per acre may increase overall effectiveness. Note conditions described for best results in the Ground Application section of this label. Apply with aircraft equipped to minimize spray drift during application and apply only when there is little or no wind, especially in areas where there are desirable plants near the target area. **NOTE:** In spraying forest planting sites to reduce the competition of unwanted trees and brush before planting forest tree seedlings, any conifers present at time of spraying may be injured or killed.

**Forest Conifer Release:** (Douglas fir, true firs, western hemlock, spruce) (1) **Oil Spray (Do not use on pines):** Apply 2 to 3 quarts of ESTERON Brush Killer in about 10 gallons of oil per acre to control undesired hardwood species. Rates higher than 2 quarts may cause conifer injury. Apply during late dormancy, usually February and March in the north west and always before conifer bud break. Later application of this spray may injure the conifers. (2) **Water Spray:** After conifers include pines, cease growth and harden off in the summer, a spray containing 2 to 3 quarts of ESTERON Brush Killer in 10 to 15 gallons of water per acre can be applied to control the hardwoods. Rates higher than 2 quarts may cause conifer injury. Consult your State Regional or Extension Forester for best application to local conditions.

### RANGELAND AND PASTURE WEED CONTROL

(See grazing note under Use Precautions.)

**General Weed Control:** Use 2 quarts of ESTERON Brush Killer per acre in the amount of water needed for uniform application to control bitterweed, broomweed, cotton stalks, kochia, lambs-ear, locoweed, lupines, marshelder, muskthistle and other broadleaf weeds. For best control, the weeds should be young and growing actively at the time of spraying.

**Control of Chaparral Species:** To control chamise, manzanita, coast sage, ceanothus, coyotebrush and others, apply 3 to 4 quarts of ESTERON Brush Killer in 5 to 15 gallons of water per acre. A gallon of oil per acre may be included for added effectiveness. For best control, the brush must be fully leafed out and growing actively when sprayed. Retreatment may be needed in subsequent years.

**Post and Blackjack Oaks:** For solid stands, use 3 quarts of ESTERON Brush Killer plus 1 gallon of oil in enough water to make 4 to 6 gallons of spray per acre. Apply when oaks are fully leafed out and soil moisture is adequate for active growth.

**Sand Shinnery Oak:** Use 1 quart of ESTERON Brush Killer plus 1 gallon of oil in enough water to make 4 gallons of spray per acre. Apply when brush is in full foliage and growing actively.

### USE PRECAUTIONS

**NOTE:** Do not graze dairy animals on treated areas within six weeks after application. Do not graze meat animals on treated areas within two weeks of slaughter.

Do not use on susceptible grasses such as bent except for spot spraying not on freshly seeded areas until grass is well established. Do not use from early boot to milk stage where grass seed production is desired. Most legumes are damaged or killed so do not treat areas where legumes are desired. Do not use on golf greens nor on dichondra or other broadleaf herbaceous ground covers.

Do not apply when weather conditions favor drift from areas treated. Do not apply ESTERON Brush Killer directly to or otherwise permit it to come into contact with cotton, grapes, fruit or ornamental trees, vegetables, flowers or other desirable crops or ornamental plants which are sensitive to 2,4-D or 2,4,5-T herbicides, and do not permit spray mist to drift onto such plants since even minute quantities of the spray, which may not be visible, can cause severe injury during both growing and dormant seasons. Use coarse spray to minimize drift.

Application by aircraft, ground rig or hand dispenser should be carried out only when there is no hazard from spray drift. Do not spray when the wind is blowing toward susceptible crops or ornamental plants. Do not spray when wind exceeds 5 miles per hour. Do not apply in the vicinity of susceptible crops or ornamental plants. Do not use in or near a greenhouse.

With aircraft application, drift can be reduced by applying no less than 5 gallons of spray per acre, by using no more than 20 pounds spray pressure at the nozzle, by using nozzles which produce a coarse spray pattern, and by spraying only when the wind velocity is less than 5 miles per hour. With ground equipment, drift can be reduced by keeping the spray boom as low as possible, by applying no less than 20 gallons of spray per acre, by using no more than 20 pounds spraying pressure with flat fan or flooding flat fan nozzle tips, by spraying only when wind velocity is less than 5 miles per hour. In gun application, use gun pressure no higher than 80 psi and apply in such manner as to confine the spray to the target area.

At high temperatures (above 95 F.), injury from this product may injure susceptible plants growing nearby. Excessive amounts of this herbicide in the soil may temporarily inhibit seed germination and plant growth.

This product is toxic to fish. Keep out of lakes, ponds and streams. Do not apply where runoff is likely to occur. Do not contaminate water by cleaning of equipment or disposal of waste. Do not contaminate irrigation ditches or water used for irrigation or domestic purposes. Do not use around the same or recreation areas.

Do not store near fertilizers, seeds, insecticides or fungicides. To avoid injury to desirable plants, do not handle or apply other agricultural chemicals with the same equipment used for ESTERON Brush Killer except as specified on this label. This product can be stored in an unopened container for 1 year if stored in a cool, dry place. If stored in a warm place, it should be stored in a cool, dry place before using.

Do not reuse container. Dispose of empty container by puncturing holes in it and burying in a deep well away from water supplies or follow a local or State order for disposal.

Local laws may affect the use of herbicides. Consult your State Agricultural Experiment Station or Extension Service weed specialists for advice in selecting treatments from this label to best fit local conditions. Be sure that use of this product conforms to all applicable regulations. Apply this product only as specified on this label.

### CAUTION

**KEEP OUT OF REACH OF CHILDREN**  
**HARMFUL IF SWALLOWED • MAY CAUSE SKIN IRRITATION**  
**Avoid Contact with Eyes, Skin and Clothing**

**NOTICE:** See a warning that the product is toxic to fish. Keep out of lakes, ponds and streams. Do not apply where runoff is likely to occur. Do not contaminate water by cleaning of equipment or disposal of waste. Do not contaminate irrigation ditches or water used for irrigation or domestic purposes. Do not use around the same or recreation areas. Do not store near fertilizers, seeds, insecticides or fungicides. To avoid injury to desirable plants, do not handle or apply other agricultural chemicals with the same equipment used for ESTERON Brush Killer except as specified on this label. This product can be stored in an unopened container for 1 year if stored in a cool, dry place. If stored in a warm place, it should be stored in a cool, dry place before using.

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THE DOW CHEMICAL COMPANY