

PM 23

34704-125

1 of 4

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

William M. Mahlburg
Platte Chemical Company
P.O. Box 667
Greeley, CO 80532-0667

12 MAY 1993

Dear Mr. Mahlburg:

Subject: Revised Label - Clarify Aerial Spray Volume
Clean Crop Low Vol 6 Ester Weed Killer
EPA Registration No. 34704-125
Your Submission Dated December 17, 1992

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable with the following provision:

Due to new EPA policy, part of the Environmental Hazards section has been changed. To comply, change the sentence "Do not apply to water or wetlands (swamps, bogs, marshes and potholes)" to read "Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark."

A stamped copy is enclosed for your records. Please submit five (5) final printed copies for the referenced label, incorporating the above change, before releasing the product for shipment.

Note that this acceptance of your label does not relieve you of your obligation to comply with the Worker Protection Standard (WPS). If any of your products are covered by the WPS, you are required to submit, and receive the Agency's approval by April 21, 1994, of a revised label reflecting the required label statements of 40 CFR 156, published in the FEDERAL REGISTER on August 21, 1992 (57 FR 38102). Further guidance will be issued. According to 40 CFR 156, subpart K, specifically § 156.200(c)(3): "No product to which this subpart applies shall be distributed or sold without amended labeling by any registrant after April 21, 1994."

Sincerely yours,

Joanne I. Miller
Product Manager (23)
Fungicide-Herbicide Branch
Registration Division (H7505C)

Enclosure

CONCURRENCES

SYMBOL	H7505C						
SURNAME	D. KENNY						
DATE	10/11/93						



LOW VOL 6

Ester Weed Killer

ACCEPTED
with COMMENTS
EPA Letter Dated:

294

MAY 1988

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 34704-125

Low volatile emulsifiable formulation for control of broadleaf weeds in corn, wheat, barley, rye, oats, sorghum, and non-crop areas.

ACTIVE INGREDIENT:

Isocetyl (2-ethoxyethyl) ester of 2,4-Dichlorophenoxyacetic acid	88.8%*
INERT INGREDIENTS:	11.2%
TOTAL	100.0%

* Isomer specific by AOAC Method No. 6.275-6.279 (13th Ed.)
* Equivalent to 88.8% 2,4-D acid or 5.6 pounds per gallon.

KEEP OUT OF REACH OF CHILDREN CAUTION

(See Below For Additional Precautionary Statements)

EPA REG. NO. 34704-125
EPA EST. NO. 2737-KS-1 (Lot No. begins 10)
EPA EST. NO. 37507-MF-1 (Lot No. begins 04)
EPA EST. NO. 34704-NB-2 (Lot No. begins 08)
NET CONTENTS 2 1/2 GALLONS

34323

EXP12P82

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS & DOMESTIC ANIMALS

CAUTION

Harmful if swallowed. Avoid breathing vapors or spray mist. Avoid contact with skin, eyes or clothing. In case of contact, immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists. When handling this product, wear chemical resistant gloves.

ENVIRONMENTAL HAZARDS

This product is toxic to aquatic invertebrates. Drift or runoff may adversely affect aquatic invertebrates and nontarget plants. Do not apply directly to water or wetlands (swamps, bogs, marshes, and potholes). Do not contaminate water when disposing of equipment washwaters.

Groundwater Contamination:

Most cases of groundwater contamination involving phenoxy herbicides such as 2,4-D have been associated with mixing/loading and disposal sites. Caution should be exercised when handling 2,4-D pesticides at such sites to prevent contamination of groundwater supplies. Use of closed systems for mixing or transferring this pesticide will reduce the probability of spills. Placement of the mixing/loading equipment on an impervious pad to contain spills will help prevent groundwater contamination.

Do not contaminate irrigation ditches or water used for domestic purposes. Use care to avoid spray contact or drift to 2,4-D susceptible plants such as cotton, tomatoes, flowers, grapes, fruit trees and ornamentals. Do not permit spray mist containing LOW VOL 6 to drift onto them, since even very small quantities of the spray, which may not be visible, can cause severe injury during both growing and dormant periods. Do not spray when the wind is blowing towards susceptible crops or ornamental plants. Use coarse sprays to minimize drift. With ground equipment spray drift can be lessened by keeping the spray boom as low as possible; by applying 20 gallons or more of spray per acre; by using no more than 20 pounds spraying pressure with flat fan or flooding flat fan nozzle tips; by spraying when wind velocity is low; and by stopping all spraying when wind exceeds 6 to 7 miles per hour. Do not apply with hollow cone-type insecticide or other nozzles that produce a fine droplet spray. With aircraft application, unless otherwise directed by this label, apply 1 to 5 gallons of spray per acre; by using nozzles which produce a coarse spray pattern; and by spraying only when the wind velocity is less than 5 miles

per hour. Although this product is much less volatile than butyl or isopropyl esters, at high temperatures (above 95°F.) vapors from this product may injure susceptible plants growing nearby. Do not use in a greenhouse. Flush sprayer out on suitable non-crop area after use. Do not use the same spray equipment for applying other materials to 2,4-D susceptible crops as injury may result.

DIRECTIONS FOR USE

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

STORAGE AND DISPOSAL

PROHIBITIONS: Do not contaminate water, food, or feed by storage or disposal. Do not store under conditions which might adversely affect the container or its ability to function properly.

STORAGE: Do not store below temperature of (0°F.) If frozen, warm to 45°F. and redissolve before using by rolling or shaking the container. Store in safe manner. Store in original container only. Keep container tightly closed when not in use. Reduce stacking height where local conditions can affect package strength. Personnel should use clothing and equipment consistent with good pesticide handling.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law and may contaminate groundwater. 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: Metal: Triple rinse (or equivalent). 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: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or 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.

GENERAL INFORMATION

LOW VOL 6 is recommended for control of numerous broadleaf weeds and certain 2,4-D susceptible woody plants without injury to most established grasses. Species controlled include the following, plus many others:

Beggarticks	Gallnoga	Plantains	Spanishneedles
Blisterweed	Garlic, wild	Poorjoe	Sumac
Blueweed, Texas	Goatsbeard	Rabbitbrush	Sunflower
Broomweed	Hemp, wild	Radish, wild	Sweetclover
Buckbrush	Jewelweed	Ragweed	Tansymustard
Burdock	Jimsonweed	Rape, wild	Tansyragwort
Burhead	Lambquarter	Redstem	Thistle, bull
Carpetweed	Loco, bigbend	Sage, coastal	Thistle, musk
Catnip	Mallow, Venice	Sagebrush, big	Thistle, Russian
Chamisa	Manzanita	Sagebrush, sand	Tumbleweed
Chicory	Marshelder	Salsify	Velvetleaf
Cocklebur	Milkvetch	Sand shin-	Vervains
Coffaweed	Morning-glory,	neryoak	Vetch
Cornflower	annual	Shepherdspurse	Water plantain
Coyote brush	Mustards	Sicklepod	Willow
Croton	Nettles	Smartweed	Aklweed
Dandelion	Onion, wild	Sneezeweed,	Wormwood
Docks	Pennycress	bitter	Yellow rocket
Dogfennel	Pepperweed,	Sowthistle,	Y-P-P starthistle
Elderberry	field	annual	
Farweed	Pigweed		

NOTE: Local conditions, crop varieties and application regulations vary and may affect use of this herbicide. Consult local agricultural expert or extension service weed specialist. Use state regulatory agencies for recommendations in your area.

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Aerial application may be of use for control of weeds on certain crops where there would be no danger of drift to susceptible crops. Applications should only be made by applicators experienced in the use of 2,4-D formulations. Regulations governing aerial application of herbicides are in effect in many states. Consult local regulatory agencies concerning requirements before making applications.

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

Treating Small Areas: One tablespoonful of LOW VOL 6 in 1 1/2 gallons of water is about equal to 1 quart in 100 gallons.

TO PREPARE THE SPRAY: (1) Fill the spray tank about half full with water, then add the required amount of LOW VOL 6, with agitation, and finally the rest of the water. NOTE: LOW VOL 6 in water forms an emulsion which tends to separate unless the mixture is kept agitated. (2) If oil is added, first mix the LOW VOL 6 and the oil and then add this mixture to the water. However, with adequate agitation, the oil can be added after the LOW VOL 6 is mixed in the water. (3) If straight oil is used, a solution is formed and separation does not occur. Do not allow any water to get into the oil-herbicide mixture to avoid formation of an invert emulsion.

TIME OF APPLICATION: Best results are obtained when LOW VOL 6 is used on young weeds that are actively growing. Applications of lower recommended rates to susceptible annual weeds usually will be satisfactory, but for perennial weeds and other conditions, such as in very dry areas where kill is difficult, use higher recommended rates. When used as a selective spray on crops, the stage of growth of the crop must be considered. Some woody plants and weeds are hard to kill and repeat applications may be necessary.

SMALL GRAINS:

Spring Wheat and Barley: Apply 1/3 to 2/3 pint per acre. Spray when grain is in full tiller stage (usually 4 to 8 inches tall) but before the boot stage and when weeds are small. Do not apply before the tiller stage nor from early boot to the dough stage. Higher rates, up to 1 1/3 pints per acre, may be needed to handle difficult weed problems in certain areas such as under dry conditions especially in western areas. However, do not use unless possible crop injury will be acceptable.

Winter Wheat and Rye: Apply 1/3 to 1/2 pint per acre in the spring at the full tiller stage but before the early boot stage. For improved control of difficult weeds including wild garlic, wild onion, tarweed and groundsel, apply 2/3 to 1 1/3 pints per acre. Since these rates may injure the crop, do not use unless possible crop injury will be acceptable. For the high rates on spring wheat and barley as well as winter wheat and rye consult State Agricultural Experiment Station or Extension Service Weed Specialists for recommendations or suggestions to fit local conditions.

Spring Seeded Oats: Apply 1/3 pint per acre at the full tiller stage but before the early boot stage. Oats are less tolerant to 2,4-D than wheat or barley and are more likely to suffer some injury.

Fall Seeded Oats (Southern) Grown for Grain: Apply 1/2 to 1 pint per acre after full tillering but before the early boot stage. Some difficult weeds may require higher rates for maximum control but crop injury may result. Do not spray during or immediately following cold weather.

NOTE: Do not permit dairy animals or meat animals being finished for slaughter to forage or graze treated grain fields within 2 weeks after treatment.

Preharvest Treatment: Apply 2/3 to 1 1/3 pints per acre when grains are in the hard dough stage to control large weeds that may interfere with harvest. Best results will be obtained when soil moisture is sufficient to cause succulent weed growth. NOTE: Do not feed treated straw to livestock.

CORN: Preemergence—Use LOW VOL 6 in sufficient water for uniform coverage. Best results are obtained when applied 3 to 5 days after planting, but before corn emerges. Do not apply to light, sandy soils.

Postemergence—Apply LOW VOL 6 from emergence to tasseling. When spraying corn above 10 inches in height, use nozzle extensions ("corn drops"), directing the spray at base of the corn plant to keep the spray off the leaves as much as possible. Do not apply from tasseling emergence to dough stage. Crop injury is more likely to occur if corn is growing rapidly under high temperature and high soil moisture conditions. Under such conditions, use the lowest recommended rates. Delay cultivation for 8 to 10 days after application to reduce stalk breakage resulting from temporary brittleness caused by 2,4-D. Hybrids vary in tolerance to 2,4-D. Consult local agricultural experiment station or extension service weed specialist regarding the use of 2,4-D on your specific hybrid. See chart for recommended rates.

Crop (See Detailed Directions Above)	For Average Conditions	For Dry Conditions as in Western States*
Corn**		
Preemergence	1 1/3 to 2 1/3 pints	
Postemergence	1/2 pint	1/3 to 1/2 pint

* Arizona, Idaho, Montana, Nevada, Oregon, Utah, Washington, Wyoming, Kansas, Colorado & Western Nebraska

** If only rows or bands are treated, leaving middles unsprayed, reduce dosage rate per crop acre proportionate to the ground area actually sprayed.

PREHARVEST CORN TREATMENT: After the hard dough or denting stage, apply 2/3 to 1 1/3 pints per acre by air or ground equipment to suppress perennial weeds, decrease weed seed production, and control tall weeds such as bindweed, cocklebur, dogbane, jimsonweed, ragweed, sunflower, velvetleaf and vines that interfere with harvesting. Do not forage or feed corn fodder for 7 days following application.

SORGHUM (MILO): Apply 1/3 pint per acre when sorghum is 5 to 15 inches tall. A higher rate of 1/2 to 2/3 pint per acre may be needed to control some weeds but the chance for crop injury is likewise increased. Do not use with oil. Do not treat before the sorghum is 5 inches tall nor during the boot, flowering or early dough stages.

If sorghum is taller than 8 inches, use drop nozzles to keep the spray off the foliage as much as possible. Temporary crop injury may occur under conditions of high soil moisture and high air temperatures. Varieties vary in tolerance to 2,4-D and some hybrids are quite sensitive. Spray only varieties known to be tolerant to 2,4-D. Contact seed company and Extension Service authorities for this information.

GRASS SEED CROPS: Use 2/3 to 1 pint per acre in the amount of water required for uniform application by air or ground equipment. Apply to established stands in spring from the tiller to early boot stage. Do not spray in boot stage. Now spring seedlings may be treated with the lower rate after the grasses have at least five leaves. Perennial weed regrowth may be treated in the fall.

Do not graze dairy animals on treated areas within 7 days after application. Do not graze meat animals on treated areas within 3 days before slaughter. Do not cut treated grass for hay within 30 days after application.

RANGELAND AND GRASS PASTURES: NOTE: Do not graze dairy animals on treated areas within 7 days after application. Do not graze meat animals on treated areas within 3 days before slaughter. Do not cut treated grass for hay within 30 days after application. Do not use on bentgrasses, alfalfa, clover or other legumes or on newly seeded pastures. Do not apply after heading begins or when grass is in the boot to milk stage where grass seed production is desired.

Bitterweed, Broomweed, Croton, Dock, Marshelder, Muskthistle and Other Broadleaf Weeds: Use 2 2/3 pints of LOW VOL 6 per acre in the amount of water needed for uniform application. If the weeds are young and growing actively, 1 1/3 pints per acre will provide control of some species. Deep-rooted perennial weeds may require repeated treatments in the same year or in subsequent years.

Wild Garlic and Wild Onion: Apply 2 2/3 to 4 pints per acre, making three applications (fall-spring-fall or spring-fall-spring) starting in late fall or early spring.

Weed Control in Newly Sprigged Coastal Bermudagrass: Apply 1 1/3 to 2 2/3 pints per acre preemergence and/or postemergence.

Sand Shinnery Oak and Sand Sagebrush: On the oak, use 1 1/3 pints in 5 gallons of oil or in 4 gallons of water plus 1 gallon of oil per acre. Apply by aircraft between May 15 and June 15. On the sagebrush, use 1 1/3 pints in 3 gallons of oil per acre and apply by aircraft when foliage is fully expanded and the brush is actively growing.

Big Sagebrush and Rabbitbrush: Use 2 2/3 to 4 pints per acre in 2 to 3 gallons of oil or in 3 to 5 gallons of oil-water emulsion spray. For rabbitbrush, the 4 pint rate is usually required. Brush should be leached out and growing actively when treated. Retreatment may be needed.

Chamise, Manzanita, Buckbrush, Coastal Sage, Coyotebrush and Certain Other Chaparral Species: Use 2 2/3 to 4 pints per acre in 5 to 10 gallons of water. One gallon of fuel oil may be included in the spray mixture for added effectiveness. Make application by aircraft or ground equipment to obtain uniform spray coverage. For effective control, the brush must be fully leached out and growing actively when sprayed. Retreatment may be needed.

Woody Plant Control: To control 2,4-D susceptible woody plants such as alder, buckbrush, elderberry, sumac and willow on rangeland, use 1 1/3 to 2 quarts LOW VOL 6 in 100 gallons of water. Wet thoroughly all parts of the plants, including foliage and stems, to the point of run-off. Higher volumes are necessary where the brush is very dense and over 6 to 8 feet high. Applications are more effective when applied to actively growing plants. Do not treat during periods of severe drought or in early fall when leaves have lost their healthy green color. Hard-to-kill species may need retreatment the following season.

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NON-CROP AREAS SUCH AS ORNAMENTAL TURF, GOLF COURSES, CEMETERIES, PARKS, ROADSIDES, VACANT LOTS, DRAINAGE DITCH BANKS: Apply 1 1/2 to 4 pints of LOW VOL 6 per acre in the amount of water needed for uniform application. Usually 2 1/2 pints per acre provides good weed control under average conditions. Treat when weeds are young and growing well. Do not use on creeping grasses such as bent and St. Augustine except for spot treating, nor on newly seeded turf until grass is well established. Reseeding of treated areas should be delayed following treatment. With spring application, reseed in the fall; with fall application, reseed in the spring. Legumes are usually damaged or killed so do not treat areas where the legumes are desired. Deep-rooted perennial weeds may require repeated treatments in the same season or in subsequent years.

TULE (BULRUSH) AND OTHER RUSHES: Mix 2 1/2 pints of LOW VOL 6 and 1 gallon of diesel oil or kerosene, then add this mixture to 100 gallons of water. Spray to wet all foliage (400-800 ounces per acre). Addition of a wetting agent may be advisable. Apply in the spring during flower head emergence. Respray if needed when regrowth is 3 to 5 feet tall.

FOREST CONIFER RELEASE: After northern conifers jack pine, red pine, black spruce, and white spruce cease growth and "harden off" in late summer, a spray of 1 to 2 quarts of LOW VOL 6 in 8 to 25 gallons of water per acre may be applied by air to control certain competing hardwood species such as alder, aspen, birch, hazel and willow. Since this treatment may cause occasional conifer injury, do not use if such injury cannot be tolerated. Consult your regional or extension forester or state herbicide specialist for recommendations to fit local conditions.

GENERAL WEED CONTROL: Along fence rows, drainage ditchbanks, roadsides, industrial sites, around farm buildings and similar areas, use 1/2 to 1 1/2 quarts of LOW VOL 6 in 100 gallons of water per acre. Thoroughly wet all foliage to run-off.

NOTICE

Platte Chemical Co. warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for the purposes stated on such label only when used in accordance with the directions under normal use conditions. It is impossible to eliminate all risks inherently associated with the use of the product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Platte. In no case shall Platte be liable for consequential, special or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the buyer. Platte makes no warranties of merchantability or fitness for a particular purpose nor any other express or implied warranty except as stated above.

FORMULATED FOR
PLATTE CHEMICAL CO.

150 SO. MAIN STREET FREMONT, NEBRASKA 68025-5697