Riverside Trademark®

2,4-D LV4

ACTIVE INGREDIENTS	
Isooctyl ester of 2,4-dichloro-phenoxyacetic acid*.....	63.7%
INERT INGREDIENTS.....	36.3%
TOTAL	100.0%

*2,4-dichlorophenoxyacetic acid equivalent: 42.3% or 3.88 lbs./gal. Isomer specific by AOAC Method No. 6.288-6.292 (14th Ed.)

ACCEPTED
SEP 8 1983
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 9779-257

STOP--READ LABEL BEFORE USING!

KEEP OUT OF REACH OF CHILDREN

CAUTION

STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED: Drink one or two glasses of water and induce vomiting by touching back of throat with finger. Get medical attention.
DO NOT GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.
IF ON SKIN: Wash with plenty of soap and water. Get medical attention if irritation persists.
IF IN EYES: Flush with plenty of water for 15 minutes. Get medical attention.

See left panel for additional precautionary statements.

EPA REG. NO. 9779-257

EPA EST. NOS. 42545-MO-1[G]; 42750-IA-1[L]
Lot nos. denote establishment.

Manufactured For
Riverside Trademark®
RIVERSIDE/TERRA CORPORATION
Terra Centre, 600 Fourth Street, Sioux City, Iowa 51101
Riverside Serves Agriculture. Agriculture Serves Everyone.

NET CONTENTS __ GALLONS

PRECAUTIONARY STATEMENTS
CAUTION
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Harmful if swallowed, absorbed through skin or inhaled. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. Remove contaminated clothing and wash before reuse. Wash thoroughly with soap and water after handling. Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons.

ENVIRONMENTAL HAZARDS

Do not contaminate water by cleaning of equipment or disposal of wastes. Do not apply directly to water. Do not apply when weather conditions favor drift from target area, as this product may injure cotton, beans, other vegetables, certain legumes and ornamentals.

PHYSICAL OR CHEMICAL HAZARDS

Do not use, pour, spill, or store near heat or open flame.

DIRECTIONS FOR USE

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

REENTRY STATEMENT

Do not enter treated areas without protective clothing until sprays have dried. Protective clothing means, at least, a hat, or other suitable head covering, a long-sleeved shirt and long-legged trousers or a coverall type garment (all of closely woven fabric covering the body, including the arms and legs), gloves, shoes and socks. Because certain states may require more restrictive reentry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

NOTICE TO CROP OWNERS: Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is a reason to believe that written warnings cannot be understood by workers. Oral and written warnings must include the following information: "DANGER. Area treated with 2,4-D LV4 on (date of application). Do not enter without appropriate protective clothing. In case of accidental exposure, wash exposed area with plenty of water and get medical attention. For further information see PRECAUTIONARY STATEMENTS on the label."

STORAGE AND DISPOSAL

DO NOT CONTAMINATE WATER, FOOD, OR FEED BY STORAGE OR DISPOSAL.

STORAGE

Store in a dry location away from children, animals, foods, feeds, seeds, or other agricultural chemicals. Keep container closed when not using. Do not allow water into container as this will cause deterioration of product. Handle in accordance with information given under PRECAUTIONARY STATEMENTS. Keep storage area locked when not in use. In the event of spillage or leakage, soak up the material with absorbent clay, sand, sawdust, or other absorbent material. Scrape up and dispose of in accordance with information given under PESTICIDE DISPOSAL. Repackage and relabel useable product in a sound container. In case of fire or other emergency, report at once by toll-free telephone to 800-424-9300.

DISPOSAL

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. 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: Plastic Containers-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. Metal Containers-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.

GENERAL INFORMATION

2,4-D LV4 is a selective herbicide recommended for the control of many broadleaved weeds in crops, along fence rows, around farm buildings and similar areas. The following is a partial list of weeds controlled:

Beggartick	Dogfennel	Nettle, stinging	Sumac
Bindweed	Elderberry	Pennycress	Sunflower
Bitterweed	Galinsoga	Pennywort	Tansy mustard
Blueweed, Texas	Goldenrod	Peppergrass	Tansy ragwort
Broomweed	Henbit	Pigweed	Tumbleweed
Buckbrush	Jimsonweed	Plantain	Velvetleaf
Burdock	Knotweed	Poorjoe	Vervain
Canada thistle	Kochia	Puncturevine	Vetch
Carpetweed	Lambsquarters	Pusley, Florida	Wild carrot
Chicory	Mallow	Ragweed	Wild garlic
Cocklebur	Marshelder	Russian thistle	Wild hemp
Coffeeweed	Milkvetch	Sherperdspurse	Wild onion
Coyotebrush	Morningglory	Sicklepod	Wild radish
Dandelion	Musk thistle	Smartweed	Willow
Dock	Mustards	Sowthistle, annual	Witchweed
			Yellow rocket

Note: Local conditions, crop varieties and application regulations vary and may affect use of this herbicide. Consult your local Agricultural Experiment Station or Extension Service weed specialists and state regulatory agencies for recommendations in your area.

Apply during warm weather when weeds or brush are actively growing. Application under drought conditions often will give poor results. Use low spray pressure to minimize drift. On cropland and along roadsides, do not exceed 20 psi pressure. Apply enough spray volume to provide uniform coverage of weeds and brush, usually 5 to 20 gal. per acre by ground equipment and 3 to 5 gallons by aircraft. Higher gallonages may be used if desired to improve spray coverage. Generally, the lower dosages recommended on this label will be satisfactory for young succulent growth of sensitive weed species. For less sensitive species and under conditions where control is more difficult, the higher dosages will be needed. For crop uses, do not mix with oil or other adjuvents unless specifically recommended on this label. Deeprooted perennial weeds such as Canada thistle and field bindweed and many woody plants require repeated applications for maximum control. Do not apply where spray drift may contact nearby susceptible crops or other desirable plants or may contaminate water for irrigation or domestic use. Read and follow all Use Precautions given on this label.

Note: If there are uncertainties concerning special local use situations or specific crop variety tolerances to 2,4-D, consult your State Agricultural Experiment Station or local Extension Service weed specialists for advice.

USE PRECAUTIONS

Avoid contact with 2,4-D susceptible crops and other desirable broadleaf plants. 2,4-D LV4 herbicide is injurious to most broadleaf plants. Therefore, do not apply directly to or otherwise permit even minute amounts to contact cotton, grapes, tobacco, fruit trees, vegetables, flowers, ornamentals or other desirable plants susceptible to 2,4-D. Do not use in or near a greenhouse.

Do not apply in the vicinity of cotton, grapes, tobacco, tomatoes or other desirable 2,4-D susceptible crops or ornamental plants. Do not spray when wind is blowing towards susceptible crops or ornamental plants.

Avoid spray drift. Applications should be made only when there is no hazard from spray drift since very small quantities of the spray, which may not be visible, may severely injure susceptible crops during both growing and dormant periods. Use coarse sprays to minimize drift since, under adverse weather conditions, fine spray droplets may drift a mile or more.

Ground Equipment: With ground equipment, spray drift can be lessened by keeping the spray boom as low as possible; by applying 20 gal. or more of spray per acre; by using no more than 20 pounds spraying pressure with large droplet producing nozzle tips; by spraying when wind velocity is low; and by stopping all spraying when wind exceeds 6 to 7 mph. Do not apply with hollow cone-type insecticide or other nozzles that produce a fine-droplet spray.

Aerial Application: With aircraft, drift can be lessened by applying a coarse spray; by using no more than 20 pounds spray pressure at the nozzles; by using straight stream nozzles directed straight back; by using a spray boom no longer than 3/4 the wing span of the aircraft; and by spraying only when wind velocity is less than 6 mph.

Do not apply by aircraft when an air temperature inversion exists. Such a condition is characterized by little or no wind and with air temperature lower near the ground than at higher levels. The use of a continous smoke column at or near site of application is suggested to indicate direction and velocity of air movement, and to indicate a temperature inversion by layering of the smoke.

Violent windstorms may move soil particles. If 2,4-D is on soil particles and they are blown onto susceptible plants, visible symptoms may appear. Serious injury is unlikely. The hazard of movement of 2,4-D on dust is reduced if treated fields are irrigated or if rain occurs shortly after application.

At high temperatures vapors from this product may injure susceptible plants growing nearby. Do not use in a greenhouse. Excessive amounts of this herbicide in the soil may temporarily inhibit seed germination or plant growth.

TO PREPARE A SPRAY WITH WATER: Add one half the required amount of water to the spray tank; then add this product with agitation, and finally the balance of the water with continued agitation.

Note: This material forms an emulsion in water, not a solution. This tends to separate on standing. Provide agitation to prevent such separation and insure uniform spray mixtures.

TO PREPARE A SPRAY WITH LIQUID NITROGEN SOLUTIONS: Fill spray tank half full with liquid nitrogen. Start agitator. Add 2,4-D LV4 in the quantity for the numbers of acres full tank will cover. Continue agitation of spray solution and complete filling of tank with fertilizer. Continue agitation until tank is empty. Mix only one tank at a time and apply immediately. Do not spray during or immediatley following cold weather. Use spray equipment designed to handle corrosive liquid nitrogen solutions. After spraying, remove any remaining solution and rinse spray rig thoroughly with water.

WEED CONTROL IN NON-CROP AREAS SUCH AS LAWNS, GOLF COURSES, CEMETERIES, PARKS, AIRFIELDS, ROADSIDES, VACANT LOTS, DRAINAGE DITCH BANKS: Apply 1 to 3 quarts per acre in the amount of water needed for uniform application. Usually 2 quarts per acre provides good weed control under average conditions. Treat when weeds are young and growing well. Do not use on golf greens, nor on dichondra or other broadleaf herbaceous ground covers. 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 legumes are desired. Deeprooted perennial weeds may require repeated treatments in the same season or in subsequent years.

With nitrogen solutions: Follow local recommended per acre rates of 2,4-D and nitrogen solutions.

WEED CONTROL IN SMALL GRAINS NOT UNDERSEEDED WITH A LEGUME

SPRING WHEAT AND BARLEY: Apply 1/2 to 1 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 2 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 1/2 to 3/4 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 and wild onion, apply 1 to 2 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 your State Agricultural Experiment Station or Extension Service Weed Specialists for recommendations or suggestions to fit local conditions.

SPRING SEEDED OATS: Apply 1/2 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 liable to suffer some injury.

FALL SEEDED OATS (SOUTHERN) GROWN FOR GRAIN: Apply 3/4 to 1 1/4 pints per acre after full tillering but before the early boot stage. Maximum control of hard-to-kill weeds may not be achieved at these rates. Do not spray during or immediately following cold weather.

Preharvest Treatment: Apply 1 to 2 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.

With Nitrogen Solutions: Follow local recommended per acre rates for 2,4-D and nitrogen solutions.

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.

CORN: Use one of the following three programs. Preemergence: Apply 1 to 2 quarts per acre to soil anytime after planting, but before corn emerges. Do not use on light sandy soil. Emergence: Apply 1 pint per acre just as corn plants are breaking ground. Postemergence: After emergence of corn, use 1/2 pint per acre. Application of 3/4 to 1 pint per acre may be needed for maximum control of some weeds but such rates are more liable to injure the corn. If corn is over 8 inches high, use drop nozzles to keep the spray off the corn foliage as much as possible. Do not apply from the tasseling to dough stage. Do not use with oil, atrazine or other adjuvants. Crop injury is more liable to occur if corn is growing rapidly under high temperature and high soil moisture conditions. To reduce breakage of stalks from temporary brittleness caused by 2,4-D, delay cultivation for 8 to 10 days after treatment. Do not forage or feed corn fodder for 7 days following application.

Note: Hybrids vary in response to 2,4-D and some are easily injured. Spray only varieties known to be tolerant to 2,4-D. Contact your Agricultural Experiment Station or Extension Service weed specialists for this information.

With nitrogen solutions: For late season control of young smartweeds, cocklebur, annual morningglory, and other annual broadleaf weeds less than 1 inch high. Fields should be as clean as possible and corn 20 to 30 inches high. Direct the spray to lower 3" to 4" of corn stalk. For each acre, mix 5/8 to 1 pint (consult local recommendations) with 80 to 120 pounds of nitrogen. Apply immediately with continuous agitation.

Preharvest corn treatment: After the hard dough or denting stage, apply 1 to 2 pints per acre by air or ground equipment to supress perennial weeds, decrease weed seed production, and control high 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.

Control of wild garlic in stubble grain fields: Following the harvest of small grain or corn, wild garlic often produces new fall growth. This should be sprayed with 2 to 3 quarts per acre of 2,4-D LV4. This is a useful practice as one part of a wild garlic control problem. Do not forage for 7 days following application. Do not plant any crop until 3 months after treatment or until 2,4-D has disappeared from the soil.

SORGHUM (MILO): Apply 1/2 pint per acre when sorghum is 5 to 15 inches high. A higher rate of 3/4 to 1 pint 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 sorghum is 5 inches high, nor during boot, flowering or early dough stages. If sorghum is higher 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 your Agricultural Experiment Station or Extension Service weed specialists for this information.

RANGELAND AND GRASS PASTURES: To control bitterweed, broomweed, croton, docks, kochia, marshelder, musk thistle and other broadleaf weeds, use 2 quarts per acre in the amount of water needed for uniform application. If the weeds are young and growing actively, 1 quart per acre will provide control of some species. Deeprooted perennial weeds may require repeated treatments in the same year or in subsequent years.

To control wild garlic and wild onion, apply 2 to 3 quarts per acre, making three applications (fall-spring-fall or spring-fall-spring) starting in late fall or early spring.

For weed control in newly sprigged coastal bermudagrass, apply 1 to 2 quarts per acre preemergence and/or postemergence.

For control of sand shinnery oak, use 1 quart 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. For control of sagebrush, use 1 quart in 3 gallons of oil per acre and apply by aircraft when foliage is fully expanded and the brush is actively growing.

To control big sagebrush and rabbitbrush, use 2 to 3 quarts per acre in 2 to 3 gallons of oil or in 3 to 5 gallons of oil-water emulsion spray. For rabbitbrush, the 3 quart rate is usually required. Brush should be leafed out and growing actively when sprayed. Retreatment may be needed.

With nitrogen solutions: Follow local recommended per acre rates for 2,4-D and nitrogen solutions.

Note: Do not graze dairy animals on treated areas within 7 days after application. Do not use on bent grass, alfalfa, clover, or other legumes. Do not use on newly seeded areas until grass is well established. Do not use from early boot to milk stage where grass seed production is desired.

GRASS SEED CROPS: Use 1 to 1½ pints per acre in the amount of water required for uniform applicaton by air or ground equipment. Apply to established stands in spring from the tiller to early boot stage. Do not spray in boot stage. New spring seedlings ma· be treated with the lower rate after the grasses have at least five leaves. Perennial weed regrowth may be treated in the fall.

WOODY PLANT CONTROL IN NON-CROP AREAS: To control species susceptible to 2,4-D in rights-of-ways, fencerows, roadsides, and along drainage ditchbanks, spray brush up to 5 to 8 feet high after spring foliage is well developed, using 3 to 4 quarts in 100 gallons of water and wetting all parts of the brush including foliage, stems and bark. This may require up to 400 gallons of spray per acre for adequate coverage of solid stands of brush. Make applications in such a way as to prevent drift of the spray from the area being treated. Spraying can be effective at any time up to 3 weeks before frost as long as soil moisture is sufficient for active growth of the brush. Control will be less effective in midsummer during hot dry weather when soil moisture is deficient and plants are not actively growing. Oil or a wetting agent may be added to the spray, if needed, for increased effectiveness.

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 1½ to 3 quarts 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.

SPOT TREATMENT: To control broadleaf wee· in small non-cropland areas with a hand sprayer, use ¼ pint in 3 gallons of water and spray to thoroughly wet all weed foliage. Keep spray mixture agitated to prevent separation.

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NOTICE: Seller warrants that the product conforms to its chemical description and is reasonably fit for the purposes 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, express or implied, extends to the use of this product contrary to label instructions, or under abnormal conditions, or under conditions not foreseeable to Seller, and Buyer assumes the risk of any such use. Seller shall not be responsible for incidential damages, if any, resulting from a breach of warranty.