



DUET

Herbicide

For Postemergence Control of Broadleaf,
Grass, and Sedge Weeds in Rice Fields.

ACCEPTED
with COMMENTS
In EPA Letter Dated

20 1996

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

Active Ingredient:

3',4'-Dichloropropionanilide 41.20%

Methyl 2-[[[[(4,6-dimethoxy-2-pyrimidinyl)amino]
carbonyl]amino]sulfonyl]methyl]benzoate 0.32%

Inert Ingredients: 58.48%

TOTAL 100.00%

This product contains 4 lbs. of 3',4'-Dichloropropionanilide and 14 grams of Methyl 2-[[[[(4,6-dimethoxy-2-pyrimidinyl)amino]carbonyl]amino]sulfonyl]methyl]benzoate per gallon of formulated product.

EPA Registration No. 56077-XX

EPA Establishment No.

KEEP OUT OF REACH OF CHILDREN

CAUTION

STATEMENT OF PRACTICAL TREATMENT

Swallowed: Induce vomiting immediately by drinking 1 or 2 glasses of water and sticking finger down throat. Do not induce vomiting or give anything by mouth to an unconscious person. Get medical attention.

If on Skin: Wash contaminated areas thoroughly with soap and water. Do not reuse contaminated clothes until washed. Get medical attention if irritation persists.

If in Eyes: Flush with copious amounts of clean water for 10 - 15 minutes. Get medical attention.

If Inhaled: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. Get medical attention.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if swallowed, absorbed through skin or inhaled. Causes eye irritation. Avoid breathing spray mist. Avoid contact with skin, eyes, or clothing. This product may cause an allergic skin reaction. In case of contact, immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks
- Chemical-resistant headgear for overhead exposure

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

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

For terrestrial uses, do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters. This product is toxic to fish. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water intended for irrigation or domestic purposes. Do not apply when weather conditions favor drift from target area.

AGRICULTURAL CHEMICAL
DO NOT SHIP OR STORE WITH FOOD, FEEDS,
DRUGS, OR CLOTHING.

**FOR CHEMICAL SPILL, LEAK, FIRE, OR
EXPOSURE, CALL TOLL FREE
1-800-424-9300**

BEST AVAILABLE COPY

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.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 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
- waterproof gloves
- shoes plus socks
- chemical-resistant headgear for overhead exposure

STORAGE AND DISPOSAL

STORAGE: Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. Do not store this product near fertilizers, seeds, insecticides, or fungicides. Containers should not be stacked more than 3 containers high. Reclose all partially used containers by thoroughly tightening screw cap. Damaged or leaking containers which contain product that cannot be used immediately should be transferred to suitable sound containers and properly marked. Any spilled material should be thoroughly absorbed with a suitable absorbent, swept up and transferred to a new or waste container for disposal as indicated under "Pesticide Disposal".

To prevent safety and prevention of unauthorized use, all pesticides should be stored in locked facilities. To prevent accidental misuse, different pesticides should be stored in separate areas with enough distance between to provide clear identification.

Opened, partially used pesticides should be stored in original containers when possible. When transfer to another container is necessary because of leakage or damage, carefully mark and identify contents of the new container. Keep containers closed when not in use.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. Wastes resulting from the use of this product may be disposed of at an approved waste disposal facility. If these wastes cannot be disposed of by use according to label instructions, contact your state pesticide or environmental control agency or the hazardous waste representative at the nearest EPA regional office for guidance.

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

WHERE TO USE

CEDAR CHEMICAL'S DUET is used for postemergence control of broadleaf, grass, and sedge weeds in RICE fields.

WEEDS CONTROLLED

arrowhead, barnyardgrass (watergrass), blunt spikerush, brachiaria (signalgrass), cocklebur, crabgrass, croton, curly indigo, dayflower, duckweed, eclipta, erlen waterhyssop, falsepimpernel, foxtail, goosegrass, gooseweed, gulf cockspur, hemp sesbanie, mexicanweed, millet (Texas), morningglory, mud plantain, paragrass, Pennsylvania smartweed, pickerelweed, pigweed, purple amaranth, redstem, rice flatsedge, roughseed bulrush, smallflower umbrellaplant, sourdock, southern naiad, spearhead, Texasweed, water plantain, waterwort, wiregrass, yellow nutsedge (DUET will not control bermudagrass, cattail, johnsongrass, red rice and sprangletop.)

GENERAL INFORMATION

Several important factors should be taken into account to achieve a high efficiency of selective weed control with DUET. These include uniform application, growth stage, water management and weather conditions. To assure uniform application mix the prescribed amount of DUET with a sufficient volume of water to provide thorough coverage of target area. For aerial applications use approximately 10 gallons of water, or for surface (ground) applications 20-30 gallons of water per acre at sufficient spray pressure. Agitate tank mixes thoroughly and continuously. Avoid over and under application.

Growth stage of weeds is very important. Best results for selective weed control are obtained when most grasses have reached the 1 to 3 leaf stage.

A static flood should be placed on treated fields approximately 48 hours following application for optimum weed control results. See "Application Timing" for additional information concerning flooding.

Proper field preparation is essential to ascertain a relatively clod free and level surface and to obtain uniform levels and growth. Fields may be flushed prior to treatment to produce uniform and vigorous grass germination and growth. Drain water from fields prior to applying DUET. Higher rates are recommended to control larger grasses or exposed weeds when rice fields are not completely drained. Inspect rice fields regularly to select the correct application time.

DO NOT apply this product through any type of irrigation system.

DO NOT apply more than 8 quarts of DUET per growing season.

DO NOT apply DUET within 14 days before or after insecticide applications. Serious injury to rice may occur.

DO NOT apply to fields where commercial catfish or crayfish (crawfish) farming is practiced and DO NOT drain water from treated fields into areas where catfish or crayfish (crawfish) farming is practiced.

DO NOT apply this product (directly or indirectly) to any crop except rice but DO NOT use on wild rice (*Zizania spp.*)

DO NOT use on lawns, walks, driveways, tennis courts or similar areas.

DO NOT apply when wind conditions will allow drift to adjacent, susceptible crops such as beans, soybeans, cotton, safflower, cucurbits, vegetables, orchards (such as almonds, prunes and grapes) and other sensitive crops.

DO NOT graze treated fields or feed treated forage within 80 days of the last application.

DO NOT apply within 80 days of harvest.

DO NOT rotate to crops other than rice for 120 days following application.

WEATHER CONDITIONS:

Temperature: Temperatures at and before application affect product activity in controlling target weeds. Applications should be made when daily maximum temperatures are between 75°F and 100°F. Control decreases with temperatures below 75°F and increases with temperatures above 75°F.

Application Timing: DUET normally requires 8 hours of DIRECT sunlight after application for absorption into target weeds, however, many atmospheric and environmental conditions can affect absorption into the target weeds. It is highly recommended that application of DUET be planned so that the applied product remains in contact with the leaf surfaces for at least 48 hours prior to rainfall or flooding. Historically, morning applications of Propanil products, including DUET, have produced better results in weed control.

Relative Humidity: DUET is a contact herbicide, therefore, herbicidal activity is affected by humidity. High humidity and dew aid in weed control by allowing the product to remain in solution longer on the leaf surface. Low humidity decreases plant activity and thus reduces product absorption. During periods of very low humidity, higher spray volumes, 12-15 gallons per acre, should be used when applied aurally.

Soil Moisture: Under dry conditions grass and broadleaf weeds are less susceptible to control. Higher rates of product, 4 to 6 quarts per acre, should be used to achieve control.

Wind: Although DUET is less susceptible to drift than solvent-based Propanil products, application should be avoided if wind velocity is high enough to cause drift of the application spray off the target site or irregular spray patterns. (For additional Propanil spray drift information consult Cedar Chemical's publication "New Options For Drift Control in Rice.")

ADJUVANTS AND APPLICATION AIDS:

When DUET is used alone (not in combination with any other postemergent rice herbicide), a low viscosity crop oil concentrate or surfactant may be used to improve wetting of foliage and increase weed control. Use of a crop oil concentrate is recommended when application is made during cool weather conditions or unstable weather conditions that may produce rain. Under adverse weather conditions, the addition of a crop oil concentrate when tank mixing DUET and other rice herbicides for application should be considered. Consult product labels for adjuvant recommendations. The use of a suitable crop oil concentrate or surfactant does not significantly increase injury to rice (leaf tip burn).

Consult Extension Service for detailed application advice.

RECOMMENDED BROADCAST RATE

Apply 3 quarts of DUET per acre when most grasses have reached the 1 to 3 leaf stage. Use 4 to 5 quarts of DUET per acre when the grasses are large (4 to 5 leaf stage) or when unusually cool weather conditions prevail, grass and broadleaf weeds are stressed due to dry conditions, or in cases where rice fields have not been drained completely and where weeds are large enough. Barnyardgrass may be controlled up to 30 to 45 days after planting, before rice plants have reached the fully tillered growth stage.

NOTE: DUET applied to rice after the 4 leaf stage may cause visible injury under some climatic conditions. Rice plants usually outgrow such injury.

NOTE: Water drained from treated rice fields must not be used to irrigate other crops or be released within 1/2 mile of a potable water intake in flowing water (i.e., river, stream, etc.) or within 1/2 mile of a potable water intake in a standing body of water (i.e., lake, pond, or reservoir).

IN CALIFORNIA: Use DUET only where rice fields are completely drained or a minimal amount of water remains. If higher water level is desired, reflood field after 12 hours and before 7 days after treatment. This will discourage new weed infestations.

SPRAYER CLEANUP

Spray equipment should be thoroughly cleaned immediately following application to avoid subsequent injury to crops other than rice. Equipment should be immediately rinsed with water to remove the bulk of the product residue while still moist. Spray mixtures allowed to dry can be difficult to remove. A solution of 1/2 gallon of chlorine bleach in 100 gallons of water should be flushed through equipment for at least 15 minutes for further cleaning of equipment.

Water rinses may be applied to rice fields. Dispose of bleach rinses at an approved waste disposal facility.

CONDITIONS OF SALE AND WARRANTY

CEDAR AND SELLER OFFER THIS PRODUCT AND THE BUYER AND USER ACCEPTS THIS PRODUCT UNDER THE FOLLOWING AGREED CONDITIONS OF SALE AND WARRANTY.

The directions for use of this product are believed to be reliable and should be followed carefully. However, it is impossible to take into account all variables and to eliminate all risks associated with its use. Injury or damage may result because of conditions which are beyond the control of Cedar or the Seller. Cedar warrants only that this product conforms to the chemical description on the label and is believed to be reasonably fit for the purposes referred to in the Directions for Use when used as directed under normal conditions. CEDAR MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. In no case shall Cedar or the Seller be liable for consequential, special, or indirect damages resulting from the use or handling of this product. Any variation or exception from this warranty must be in writing and signed by an authorized Cedar representative.

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