


34704-461

03/11/2009

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	<b>U.S. ENVIRONMENTAL PROTECTION AGENCY</b> <b>Office of Pesticide Programs</b> <b>Registration Division (7505P)</b> <b>Ariel Rios Building</b> <b>1200 Pennsylvania Ave., NW</b> <b>Washington, D.C. 20460</b>		EPA Reg. Number:	Date of Issuance:
			34704-461	MAR 11 2009
<b>NOTICE OF PESTICIDE:</b> _ Registration <input checked="" type="checkbox"/> Reregistration (under FIFRA, as amended)		Term of Issuance:		
		Name of Pesticide Product: <b>Best Propanil 3EC Post Emergence Grass &amp; Weed Killer</b>		
Name and Address of Registrant (include ZIP Code): Loveland Products, Inc. P.O. Box 1286 Greeley, CO 80632-1286				
<b>Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.</b>				
<p>On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.</p> <p>This product is reregistered in accordance with FIFRA section 4(g)(2)(C) provided you:</p> <ol style="list-style-type: none"> <li>1. Submit and/or cite all data required for registration/reregistration review of your product when the Agency requires all registrants of similar products to submit data</li> <li>2. Make the following changes to the product label:           <ol style="list-style-type: none"> <li>a. Revise the Active Ingredient listing to read "Propanil: 3'4'-Dichloropropionanilide".</li> <li>b. Revise the heading from "Inert Ingredients" to "Other Ingredients".</li> <li>c. Revise the ingredients statement to read "This product contains 3 lbs of propanil per gallon."</li> <li>d. Add a footnote to the ingredients statement with the text "Contains petroleum distillates."</li> <li>e. Revise the "If on Skin or Clothing" statement to read the following:               <ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul> </li> </ol> </li> </ol>				
Signature of Approving Official:			Date:	
Jim Tompkins Product Manager 25 Herbicide Branch Registration Division (7505P)			MAR 11 2009	

- f. Revise the Hazards to Humans and Domestic Animals statement to read the following:  
“Harmful if swallowed, absorbed through skin, or inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Avoid breathing spray mist.”
- g. Revise the PPE statement to read the following, including both sets of statements since it is unclear whether this product is packaged with or without built-in probe:

(For formulations NOT packaged with built-in probe)

“Some materials that are chemical-resistant to this product are barrier laminate or butyl rubber  $\geq$  14 mils. If you want more options, follow the instructions for category B on and EPA chemical-resistance category selection chart.

Mixers, loaders, ground applicators, and handlers cleaning up spills or equipment, or otherwise exposed to the concentrate and handlers removing an unrinsed probe must wear the following:

- Coveralls over long-sleeved shirt and long pants,
- Chemical-resistant gloves,
- Chemical-resistant footwear plus socks,
- Protective eyewear, if the system operates under pressure, and
- Chemical-resistant apron when mixing and loading.

Pilots and handlers removing a triple-rinsed probe must wear:

- Long-sleeved shirt,
- Long pants,
- Shoes and socks.

See engineering controls for additional requirements.”

(For formulations packaged WITH built-in probe)

“Some materials that are chemical-resistant to this product are barrier laminate or butyl rubber  $\geq$  14 mils. If you want more options, follow the instructions for category B on and EPA chemical-resistance category selection chart.

Mixers, loaders, applicators, and other handlers must wear the following:

- Long-sleeved shirt,
- Long pants,
- Shoes and socks,
- Chemical-resistant gloves and chemical-resistant apron when mixing/loading, cleaning up spill or equipment, or otherwise exposed to the concentrate.

See engineering controls for additional requirements.”

- h. Revise the second sentence under User Safety Requirements to read “If no such instructions for washables exist, use detergent and hot water.”

- i. Include the following Engineering Controls text for product packaged with built-in probe: "Mixers and loaders must use a closed system that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4) for dermal protection and must:
  - Wear the personal protective equipment required in the PPE section of this labeling for mixers and loaders,
  - Wear protective eyewear, if the system operates under pressure, and
  - Chemical-resistant footwear and coveralls must be provided and be immediately available for use in an emergency, such as a broken package, spill, or equipment breakdown."
- j. Revise the heading from "All Transfer Systems" to "PPE for All Transfer Systems".
- k. Revise the first paragraph of the Environmental Hazards statement to read the following: "This pesticide is toxic to fish and aquatic invertebrates. 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 wash waters or rinsate. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas."
- l. Move the Environmental Hazards statements "Do not contaminate water intended for irrigation or domestic purposes." and "Do not apply when weather conditions favor drift from target area." to the Directions for Use restrictions section of the label.
- m. The Physical and Chemical Hazards statement is optional for this product and may be removed.
- n. Move the Pesticide Storage statement "Do not contaminate water, food, or feed by storage and disposal." so that it is directly below the Storage and Disposal heading.
- o. Revise the Container Disposal section as outline in PR Notice 2007-4.
- p. It is suggested that all restrictions in the Directions for Use section be grouped together and listed under the subheading "Application Restrictions".
- q. Remove the duplicate restriction "DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours." since it is already stated in the Agricultural Use Requirements box.
- r. Revise the sentence under General Information to read "Higher **listed** rates are recommended to control larger grasses or exposed weeds when rice fields are not completely drained."
- s. Move the restrictions "Apply only when the wind speed is less than or equal to 10 mph at the application site." and "Apply as a medium or coarser spray (ASAE standard 572)." and incorporate into the Spray Drift Management subsections Wind and Droplet Size, respectively.
- t. Remove the three bulleted Spray Drift Management statements at the top of page 10.

- u. Revise the Boom Length statement to read "The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter."
- v. Revise the first sentence under Application Height to read "Do not release spray at a height greater than 10 feet above the ground or crop canopy."
- w. Revise the first sentence under Temperature Inversions to read "Do not make any type of application into temperature inversions."
- x. Revise the first sentence under Sensitive Areas to read "Do not apply by air if drift can occur to sensitive nontarget crops or plants that are within 100 feet of the application site."
- y. Revise the heading to "BROADCAST RATE" by removing the word "RECOMMENDED".
- z. Revise the maximum product application rate per season from "11 quarts" to "10.7 quarts".
- aa. Either include a section titled "For Ground Applications" with the restriction "Apply using a nozzle height of no more than 4 feet above the ground or crop canopy." or remove the entire "For Aerial Applications" section since the restrictions are incorporated under the Spray Drift Management section.
- bb. Revise the third Emergency Release Provision statement to read "For rice in all other parts of the US not mentioned above...and forces premature release."
- cc. Move the restrictions "DO NOT harvest within 60 days of application." and "ALLOW 60 days interval prior to planting any rotational crop in treated areas." under the Application Restrictions section.
- dd. Revise the product name from "Propanil Herbicide" to "Best Propanil 3EC Post Emergence Grass & Weed Killer" in all instances throughout the label.

The Basic CSF dated March 9, 2009 is acceptable and is placed in your records.

A stamped copy of your label is enclosed for your records. Submit one (1) copy of the revised final printed label for the record before you release the product for shipment. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

Enclosure

### Best Propanil 3 EC Post Emergence Grass & Weed Killer

For Postemergent Control of Broadleaf and Grass Weeds in Rice Fields

Active Ingredient:

3'4'-Dichloropropionanilide ----- 35.0% w/w

Inert Ingredients ----- 65.0% w/w

TOTAL ----- 100%

This product contains 36% wt/vol of 3',4'-Dichloropropionanilide per gallon.

EPA Registration No. 34704-461

EPA Est. No. 34704-MS-1

Net contents 2.5 gal.

KEEP OUT OF REACH OF CHILDREN

CAUTION

**ACCEPTED**  
**with COMMENTS**  
**In EPA Letter Dated:**  
**MAR 11 2009**

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

34704-461

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

Product formulated for:  
Loveland Products, Inc.  
P. O. Box 1286  
Greeley, CO 80632-1286

103/09/2009

FIRST AID	
If on skin or clothing:	<ul style="list-style-type: none"> <li>• Takeoff contaminated clothing. Do not reuse contaminated clothing until laundered.</li> <li>• Rinse skin immediately with plenty of water for 15 -20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice if irritation continues..</li> </ul>

If swallowed:	<ul style="list-style-type: none"><li>• Call a poison control center or doctor immediately for treatment advice.</li><li>• Do not give <b>any</b> liquids to the person.</li><li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
If in eyes:	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
If inhaled:	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li><li>• Call a poison control center or doctor for further treatment advice.</li></ul>
Have the product 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: CALL (800) 301-7976.	
<b>NOTE TO PHYSICIANS</b>  Contains petroleum distillates. May cause chemical pneumonitis if aspirated. If Lavage is performed, suggest endotracheal and /or esophagosopic control.	

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**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTICS ANIMALS**

**CAUTION**

Harmful if swallowed. Avoid breathing spray mist. May cause skin irritation. 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.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Some materials that are chemical-resistant to this product are barrier laminate or butyl rubber  $\geq 14$  mils. For more information, follow instructions in Supplement Three of PR Notice 93-7. If you want more options, follow the instructions for category B on an EPA chemical-resistance category selection chart.

**Mixers, Loaders, Applicators and other handlers must wear the following:**

- Long-sleeved shirt and long pants,
- Shoes and socks
- Chemical-resistant gloves and chemical-resistant apron when mixing/loading, cleaning up spills or equipment, or otherwise exposed to the concentrate.

See engineering controls for additional requirements.

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

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

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

## ENGINEERING CONTROLS

Mixers and loaders must either:

1. Use a closed system that meets the requirements listed in the Worker Protection Standard (WPS) for dermal protection of agricultural pesticides [40 CFR 170.240(d)(4)] or
2. Use the probe system described below.

## PROBE SYSTEM

Specific requirements for use of the probe closed mixing/loading system:

- > Remove plug from bung of drum containing this product only when drum is sitting on the ground or on a secure level platform, with the bung end of the drum pointed up.
- > Do not pour this product from its drum.
- > Transfer product from the drum to the mixing tank by use of a suction hose connected at one end to the suction pump on the mixing wand and connected at the other end to a probe (dip tube) that is inserted through the bung opening into the drum.
- > Do not handle the probe or bung in a manner that allows dripping or splashing of the product onto yourself or any other person.
- > Do not touch the portion of the probe that has been in contact with this product until after the probe has been triple rinsed with water.
- > If all of the product is removed from the drum, then triple rinse the probe while it remains inside the drum.

## UN-RINSED PROBES

- > If an un-rinsed probe must be removed from the drum, then use an anti-drip flange, and immediately transfer the probe into a container of rinse water. The anti-drip flange must be designed to remove excess propanil product from the probe as it is extracted from the drum.
- > Take the following steps if the probe must be disconnected from the suction hose before both the probe and the hose have been triple rinsed:
  - equip the probe end of the hose with a shut off valve,
  - install a dry break coupling between the valve and the probe,
  - close the shut-off valve before disconnecting the probe.

## ALL TRANSFER SYSTEMS

In addition, mixers and loaders using all systems must:

- wear the personal protective equipment required in the PPE section of this labeling for mixers and loaders,
- wear protective eyewear, if the system operates under pressure, and



- when using a system that meets the requirement in the WPS as a closed system or using a probe system when the probe is not removed, chemical-resistant footwear must be provided, be immediately available, and be used in an emergency, such as a broken package, spill, or equipment breakdown.

All systems must be capable of removing the pesticide from the shipping container and transferring it into mixing tanks and /or application equipment. At any disconnect point, the system must be equipped with a dry disconnect or dry couple shut-off device that is warranted by the manufacturer to minimize drippage.

Human flagging is prohibited. Flagging to support aerial application is limited to use of the Global Positioning System (GPS) or mechanical flaggers.

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

### **USER SAFETY RECOMMENDATIONS**

Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Users should 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**

This product is toxic to fish and aquatic invertebrates. Do not contaminate water when disposing of equipment wash waters. 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.

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical prior to flooding may result in shallow groundwater contamination due to cracks in the subsoil of the rice paddy.

This product may contaminate water through runoff following rainfall events and by seepage through levees. This product has a high potential for runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Levees should be constructed with adequate time prior to chemical

application so that they are compacted to reduce seepage and to hold a 3-6 inch flood (2001 Mississippi Rice Growers Guide). Other guidance is located at <http://apronomy.ucdavis.edu/uccerice/water/seep.htm> and from the document "Closed Rice Water Management Systems" from the National Resource Conservation Service of USDA. The University of Arkansas Rice Production Book (<http://www.uaex.edu/other/areas/publications/html>) also provides information concerning levee production.

## **PHYSICAL AND CHEMICAL HAZARDS**

Do not use or store near heat or open flame.

## **STORAGE AND DISPOSAL**

**PESTICIDE 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. Do not store near heat or open flame. Containers should not be stacked more than 4 containers high. Reclose all partially used containers by thoroughly tightening bungs. Damaged or leaking containers which contain product that cannot be used immediately should be transferred to suitable sound containers and properly marked. Absorb any spill with a suitable clay absorbent and dispose of as indicated under 'Pesticide Disposal'. Keep containers closed when not in use.

For 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.

**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:**

**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.

**PLASTIC Containers:** Triple rinse (or equivalent), adding rinsate to spray tank. 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

FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident, call CHEMTREC at 1-800-424-9300

**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.

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

DO NOT apply to fields where commercial catfish farming is practiced and do not drain water from treated fields into areas where catfish farming is practiced.

DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours.

**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, chemical-resistant gloves made out of any waterproof material, chemical resistant footwear plus socks, and protective eyewear.

## PLANT BACK INTERVAL

Do not plant or transplant crops in the treated area for at least 60 days following an application of this product.

## WEEDS CONTROLLED

Barnyardgrass (watergrass), brachiaria, coffeeweed, crabgrass, croton, curly dock, foxtail, goosegrass, gulf cockspur, mexicanweed, millet (Texas), paragrass, pigweed, sourdock, spearhead, wiregrass. (This product will not control arrowhead, Bermudagrass, cattail, ducksalad, Johnsongrass, nutgrass, red rice and sprangletop).

## GENERAL INFORMATION

Several important factors should be taken into account to achieve a high efficiency of selective weed control with propanil. These include uniform application, growth stage and weather conditions. To assure uniform application shake or roll container prior to opening and mix the prescribed amount of product with a sufficient volume of carrier to provide thorough coverage of target area. For aerial applications use approximately 10 gallons, and for surface (ground) applications 20-30 gallons of carrier per acre at high enough 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. Proper field preparation is essential to ascertain a relatively clod free and level surface and to obtain uniform flood 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 product. 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.

Weather conditions must be observed closely. Under cool weather conditions higher rates are required to achieve satisfactory control. Avoid application if rain threatens within 6 to 8 hours, or if wind velocities are high enough to cause drift and irregular spray patterns. Apply only when wind speed is less than or equal to 10 mph at the application site.

Apply as a medium or coarser spray (ASAE standard 572).

## **ADDITIONAL REQUIREMENTS FOR GROUND APPLICATIONS**

Apply using a nozzle height of no more than 4 feet above ground or crop canopy.

### **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: This product 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 product be planned so that the applied product remain in contact with the leaf surfaces for at least 48 hours prior to rainfall or flooding. Historically, morning applications of Propanil Herbicide has produced better results in weed control.

Relative Humidity: This product is a contact herbicide; therefore, herbicidal activity is affected by humidity. High humidity and the presence of 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, 8-10 gallons per acre, should be used when applied aerially.

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

Wind: Avoid application if wind velocity is high enough to cause drift of the application spray off the target site or irregular spray patterns.

### **SPRAY DRIFT MANAGEMENT**

Avoiding spray drift at the application is the responsibility of the applicator and the grower. The interaction of many equipment and weather-related factors determine the potential for spray drift. The applicator and the grower is responsible for considering all these factors when making decisions.

- > The distance from the outer most nozzles to the boom must not exceed 3/4 the length of the wingspan or rotor.
- > Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.
- > The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

#### Information on Droplet Size

The most effective way to reduce drift potential is to apply large droplets (>150-200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. Applying large droplets reduces drift potential, but will not prevent drift if applications are made improperly or under unfavorable environmental conditions. (See Wind, Temperature and Humidity, and Surface Temperature Inversions sections of this label.)

#### Controlling Droplet Size

**Volume** — Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

**Pressure** — Do not exceed the nozzle manufacturer's recommended pressures. For many nozzles types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles of increasing pressure.

**Nozzle Orientation** — Orienting nozzles so that the spray is released parallel to the air stream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.

**Number of Nozzles** — Use the minimum number of nozzles that provide uniform coverage.

#### Boom Length

For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

#### Application Height

Applications should be made at a height no greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications

at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

### Swath Adjustment

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.)

### Wind

Drift potential is lowest between wind speeds of 3-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 3 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect drift.

### Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

### Temperature Inversions

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small-suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

### Sensitive Areas

Do not apply when wind conditions will allow drift to sensitive areas. Sensitive areas include, but are not limited to, residential areas, bodies of water, known habitat for threatened or endangered species, and non-target crops.

**ADJUVANTS AND APPLICATION AIDS:**

When this product is used alone (not in combination with any other postemergent rice herbicide), a surfactant such as Liberate® or LI 700® @ 1 qt/100 gal. may be used to improve wetting of foliage and increase weed control. The use of a suitable crop oil concentrate or surfactant does not significantly increase injury to rice (leaftip burn). Consult Extension Service for detailed application advice.

**RECOMMENDED BROADCAST RATE**

Apply 3 quarts of product per acre when most grasses have reached the 1 to 3-leaf stage. Use 5 1/3 to 8 quarts of product per acre when the grasses are large (4 to 6 leaf stage) or when unseasonably 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.

DO not apply more that 8 quarts product (6 lbs active ingredient per acre) per application. Do not apply more that 11 quarts product (8 lbs. active ingredient per acre) per season.

Application to fields where catfish farming is practiced and draining water from fields into areas where catfish farming is practiced is prohibited.

**NOTE:** Product 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 upstream of a potable water intake in flowing water (e.g., river, stream, etc.) or within 1/2 mile of a potable water intake in a standing body of water such as a lake, pond, or reservoir.

Not registered for use in California.

DO NOT apply this product (directly or indirectly) to any crop except rice.

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

**FOR AERIAL APPLICATIONS**

- DO NOT apply by air if drift can occur to sensitive nontarget crops or plants that are within 100 feet of the application site.



- DO NOT release spray at a height greater than 10 feet above the ground or crop canopy.
- Boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.
- Do NOT make any type of applications into temperature inversions.
- When applications are made with a cross-wind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind.

### **EMERGENCY RELEASE PROVISIONS**

#### **WATER HOLDING (DISCHARGE) INTERVALS FOR FLOOD WATER FOLLOWING PROPANIL APPLICATIONS IN ALL STATES:**

For delayed flood (water-seeded) rice grown South of Interstate highway 10 from the Texas/Louisiana border to Houston and East of State Highway 35 from Houston to Port Lavaca - Flood water must be held for 10 days after application, unless excessive rainfall completely submerges the rice crop and forces premature release. FOR Texas rice grown in areas North or West of these boundaries, the water holding interval will be 7 days.

For delayed flood (water-seeded) rice in Southern Louisiana South of Highway 14 - Flood water must be held for 15 days after propanil application unless excessive rainfall completely submerges the rice crop and forces premature release. Delayed flood (water-seeded) rice in Louisiana, North of the Highway 14 boundary, is subject to the 7-day water holding interval provision.

For permanent flood(water-seeded) rice in California and all other parts of the US not mentioned above - Flood water must be held for 7 days after application, unless excessive rainfall completely submerges the rice crop and forces premature release.

DO NOT harvest within 60 days of application.

ALLOW 60 days interval prior to planting any rotational crop in treated areas.

### **SPRAY MIXTURE PREPARATION**

#### **Wet Spray Application**

Thoroughly mix this product with clean water (water that is free of sediment and agricultural chemicals) in the spray tank. Do not use water from paddies. Only approved drift control agents, e.g. Chemtrol 6, may be used with PROPANIL HERBICIDE. Do not use any other additives except as directed by this label.

To ensure uniform mixing and application, agitate the mixture before application. If the mixture is not sprayed immediately after agitation, re-agitate it before application. Always apply spray preparation within 24 hours of product mixing, or the product may degrade.

Do not store in nurse tanks or any other tanks used to store or transport clean water. Install one-way valves (antisiphoning devices) on lines and hoses of mixing/loading equipment to prevent contamination of nurse tanks or other clean water sources.

Mixing and application equipment exposed to this product cannot be used for anything other than rice applications until it has been cleaned according to the procedures in the Sprayer Cleanup section of this label.

**Additional Mixing Instructions (wet spray)**

1. Fill the tank 1/4 to 1/3 full of clean water.
2. While agitating, add the required amount of PROPANIL HERBICIDE.
3. Continue agitation until the product is fully dispersed, at least 5 minutes.
4. Once the PROPANIL HERBICIDE is fully dispersed, maintain agitation and continue filling the tank with water. The product should be thoroughly mixed with water before adding any other material.
5. As the tank is filling, add the required tank mix partner (other labeled rice herbicides, adjuvants, drift control agents, etc.)
6. If the mixture is not continuously agitated, settling may occur. If setting occurs, thoroughly re-agitate before using.
7. Apply spray preparations within 24 hours of product mixing, or the product may degrade.
8. If product and a tank mix partner are to be applied in multiple loads, pre-slurry the product in clean water prior to adding to the tank. This will prevent the tank mix partner from interfering with the dissolution of the PROPANIL HERBICIDE.

**SPRAYER CLEANUP**

Before using equipment exposed to this product to treat another crop, clean the sprayer and any other equipment (loading hoses, batch tanks, etc.) using the following procedure:

1. Steam-clean tank using ALL CLEAR or Tank and Equipment cleaner taking care to remove all physical residues.
2. Thoroughly rinse sprayer, tanks, boom, and hoses with clean water (free of sediment and agricultural chemicals.)
3. Fill the tank one-half full with clean water and add ALL CLEAR or Tank and Equipment cleaner. Fill the tank to capacity with clean water. Flush the nozzles, boom, and hoses, and agitate (and recirculate, if possible) the sprayer for 15 minutes. Drain the equipment, taking care to flush the boom and hoses thoroughly.
4. Rinse tanks, hoses and nozzles with clean water.

5. Fill the tank one-half full with clean water and add 1 gal. of 21% ammonia or 7 gal. of 3% ammonia per 100 gal. of water. Fill the tank to capacity with clean water. Flush the nozzles, boom, and hoses and agitate (and recirculate, if possible) the sprayer for 15 minutes. Drain the equipment, taking care to flush the boom and hoses thoroughly.
6. Remove nozzles, screens, and strainers, and clean them separately.
7. Rinse tanks, booms, and hoses with clean water.
8. Repeat steps 5 and 7 an additional 3 times.
9. Rinse tanks, booms, and hoses to remove all traces of ammonia.
10. Water rinses may be applied to rice fields. Dispose of bleach rinses at an approved waste disposal facility.

NOTE: When applying multiple loads of this product several days in a row, the following procedure must be performed at the end of each day; partially fill the tank with fresh water, flush the boom and hoses, and allow to sit overnight.

**ATTENTION:** Do not use chlorine bleach with ammonia. All traces of liquid fertilizer containing ammonia, ammonium nitrate or ammonium sulphate must be rinsed from the mixing and application equipment using water before adding chlorine bleach solution. Failure to do so will release a gas with a musty chlorine odor that can cause eye, nose, and throat and lung irritation. Do not clean equipment in an enclosed area. Perform cleanup procedures on batch tanks and any other mixing equipment separately from aircraft hoppers. Take care to clean loading hoses and any other equipment or surfaces exposed to this product.

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