

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

OCT 16 2008

Judy Smith Regulatory Consultant RiceCo® LLC 5100 Poplar Avenue Suite 2428 Memphis, TN 38137

SUBJECT:

Application for Pesticide Notification -Add Scientific Names to Weeds in

"Weeds Controlled" Section

Propanil 60 DF Herbicide EPA Reg. No. 71085-22

Application Dated December 14, 2007

#### Dear Ms. Smith:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions, please call me directly at 703-305-6249 or Terri Stowe of my staff at 703-305-6117.

Sincerely,

Linda Arrington

Notifications & Minor Formulations Team Leader
Registration Division (7505P)

Registration Division (7505P)

Office of Pesticide Programs

Form Approved. OMB No. 2070-0060

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**United States** 

# **Environmental Protection Agency**

Washington, DC 20460

Registration
Amendment
Other

**OPP Identifier Number** 

Application for Pesticide - Section I								
1. Company/Product Number 71085-22		2. EPA Product Manager Jim Tompkins			roposed Classification			
4. Company/Product (Name) PROPANIL 60 DF Herbicide		PM# 25						
5. Name and Address of Applicant (Include ZIP Code) RiceCo LLC 5100 Poplar Avenue, Suite 2428 Memphis, TN 38137  Check if this is a new address		6. Expedited Reveiw. In accordance with FI (b)(i), my product is similar or identification:  EPA Reg. No				GAAG CHand labeling		
Section - II								
Amendment - Explain below.  Resubmission in response to Agency letter dated								
Notification adding the scientific name to the each of the weeds listed in the "Weeds Controlled" section.  This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.								
	Sect	ion - I	11					
1. Material This Product Will Be Packaged In:								
Child-Resistant Packaging  Yes  No  * Certification must be submitted  Unit Packaging  Yes  No  If "Yes" Unit Packaging wgt. container	Water	Yes No	No. per container	2. Type of	Metal Plestic Glass Peper	r Specify)		
3. Location of Net Contents Information 4. Size(s) Ro	etail Contai	ner	5.	Location of Lel	bel Directi	ions		
6. Manner in Which Label is Affixed to Product								
Section - IV								
1. Contact Point   (Complete items directly below for identification)	ion of indivi	dual to b	e contected, if n	ecessary, to pi	ocess this	s application.)		
Name Judy Smith		Title Regulatory Consultant			Telephone No. (Include Area Code) 901-684-5390			
Certification  I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete.  I acknowledge that any knowlinglly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.  6. Date Application Received  (Stamped)								
2. Signature		3. Title						
Ou dry Someth		Regulatory Consultant						
4. Typed Name		5. Date						
Judy Smith	Decer	nber 1	4, 2007		· (,,,			



# **FEDERAL EXPRESS TRK. NO. 7924 7217 9420**

**December 14, 2007** 

Document Processing Desk (NOTIF)
Office of Pesticide Programs (7504P)
U. S. Environmental Protection Agency
One Potomac Yard
2777 South Crystal Drive
Arlington, VA 22202

RE: PROPANIL 60 DF - EPA REG. NO. 71085-22 NOTIFICATION AMENDMENT

Dear Sir or Madam:

Enclosed please find the following in support of our notification amendment:

- 1 Notification Amendment Application Form (8570-1)
- 1 Copy of Revised Labeling

This notification is adding the scientific name to each of the weeds listed in the "Weeds Controlled" section. No other changes have been made to the label.

If further information is needed, please contact Sam Bondurant by telephone @ (901) 684-5381 or by email at <a href="mailto:sam.bondurant@ricecollc.com">sam.bondurant@ricecollc.com</a>.

Sincerely,

RiceCo LLC

Judy Smith

**Regulatory Consultant** 

Encls.

"...from the paddy to the plate"



# Propanil 60 DF

# Propanil Herbicide

For Postemergence Control of Broadleaf and Grass Weeds in Rice Fields

**Active Ingredient:** 

Propanil: 3',4'-Dichloropropionanilide 60.00%
Inert Ingredients: 40.00%
TOTAL 100.00%

This product contains 0.6 lb. of 3',4' Dichloropropionanilide (Propanil) per pound of formulated product

EPA Reg. No. 71085-22

EPA Est. No. 1812-GA-01; 34704-MS-01; 62171-MS-1; 37429-GA-1; 46193-GTM-1; 68848-BRA-1; 5905-GA-1

# **CAUTION - CAUCION**

## KEEP OUT OF REACH OF CHILDREN

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

#### **FIRST AID**

#### If Swallowed:

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to by a poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

#### If in Eyes:

- Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.
- Call a poison control center or doctor for treatment advice.

#### If on Skin:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

#### If Inhaled:

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
- Call a poison control center or doctor for further treatment advice.

## AGRICULTURAL CHEMICAL

DO NOT SHIP OR STORE WITH FOODS, FEEDS, DRUGS, OR CLOTHING.

FOR CHEMICAL SPILL, LEAK, FIRE OR EXPOSURE, CALL GLOBAL LOGISTICS @ (504) 439-3140 OR (504) 599-3881

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

MANUFACTURED FOR: RICECO LLC MEMPHIS, TN 38137 Net Contents: 50 Lbs.

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMAN AND DOMESTIC ANIMALS CAUTION

Harmful if swallowed, absorbed through skin or inhaled. Causes moderate eye irritation. Avoid breathing spray mist or dust. 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 chemical-resistant gloves. For more information, follow instructions in Supplement Three of PR Notice 93-7. If you want more options, follow the instructions for category A on an EPA material category selection chart.

Note to EPA reviewer: This section for Formulations Packaged before December 1, 2007:

## Mixers, loaders, and other handlers exposed to the concentrate must wear:

- Coveralls over long-sleeve shirt and long pants,
- · Chemical-resistant gloves,
- Chemical-resistant footwear plus socks.
- · Chemical-resistant headgear, if overhead exposure, and
- Chemical-resistant apron.

#### Applicators and other handlers exposed to the dilute must wear:

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

See Engineering Controls for additional requirements and options.

Note to EPA reviewer: This section for Formulations Packaged after December 1, 2007:

#### Mixers, loaders, applicators, and other handlers must wear:

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

See Engineering Controls for additional requirements and options.

Note to EPA reviewer: This section for Formulations Packaged before December 1, 2007:

#### **ENGINEERING CONTROL STATEMENTS:**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d) (4-6), the handler PPE requirements may be reduced or modified as specified in the WPS. Water-soluble packets when used correctly qualify as a closed mixing/loading system under the WPS.

Note to EPA reviewer: This section for Formulations Packaged after December 1, 2007:

#### **ENGINEERING CONTROL STATEMENTS:**

Water-soluble packets when used correctly qualify as a closed mixing/loading system under the Worker Protection Standard for Agricultural Pesticides [40 CFR 170.240(d)(4)]. Mixers and loaders using water-soluble packets must:

- --wear the personal protective equipment required in the PPE section of this labeling for mixers and loaders, and
- --be provided and must have chemical-resistant footwear immediately available for use in an emergency, such as a broken package, spill, or equipment breakdown.

Note to EPA reviewer: The following is to appear on all labels under Engineering Control: Human flagging 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 REQUIREMENTS:**

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.

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

#### **USER SAFETY RECOMMENDATIONS**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- 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 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 intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate. 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.

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.

#### **DIRECTIONS FOR USE**

It is a violation of Federal Law to use this product in a manner inconsistent with this labeling. Do not apply this product in a way that will contact workers or other persons, either directly or indirectly 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, documentation, 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 Workers 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 such as or made out of any waterproof material,
- Chemical-resistant footwear plus socks, and
- Protective eyewear

#### STORAGE AND DISPOSAL

#### Do not contaminate water, food or feed by storage or disposal.

**PESTICIDE STORAGE:** Do not store this product near fertilizers, seeds, insecticides, or fungicides. Palletized product should not be stacked more than 3 units high. Reclose all partially used containers by tying bag top shut. 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 must be thoroughly swept up and transferred to the new container or disposed of as indicated under 'Pesticide Disposal'.

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 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 on site or 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:**

Paper Bags: Empty entire contents of bag into applicator equipment. Dispose of empty bags in a sanitary landfill or by incineration, or by burning if allowed by State and local authorities. If burned, stay out of smoke.

**Fiber Drums:** Empty entire contents of liner, including product residues that may have adhered to liner, into application equipment. Loosen and remove residues by shaking and tapping bottom and sides of liner. Dispose of liner and any drums that have become contaminated in a sanitary landfill or by incineration if allowed by State and local authorities.

Bulk: When the container is empty, replace the cap and seal all openings that have been opened during use, and return the container to the point of purchase, or to an alternate location designated by the registrant at the point of purchase of this product. If not returned to the point of purchase or to a designated location, triple rinse or pressure rinse the empty container and offer for recycling if available.

#### Instructions for Users and Refillers:

This container must only be refilled with this pesticide. **Do Not Reuse the Container for any Other Purpose.** Do not transport if this container is damaged, leaking or obsolete, or to obtain information about recycling refillable containers, contact RiceCo LLC at 1-888-835-1313. Cleaning is not necessary prior to refilling with the same product. Clean container before final disposal. Disposal of this container must be in compliance with State and local regulations.

Instructions for Refillers: Prior to refilling, inspect carefully for damage, such as cracks, punctures, abrasions, worn-out threads and closure devices. Check for leaks after refilling and before transporting. If the container cannot be refilled, triple rinsed or pressure rinsed, completely empty bag into application equipment. Dispose of empty bag in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

#### **GENERAL PRECAUTIONS AND RESTRICTIONS**

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

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

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

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 apply PROPANIL 60 DF within 60 days of harvest.

DO NOT apply more than 6 lbs active ingredient per acre per application.

DO NOT apply more than 8 lbs active ingredient per acre per season.

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

DO NOT graze treated fields or feed treated forage within 60 days of the last application.

ATTENTION: Never apply PROPANIL 60 DF except as recommended on this label because use in any other way may result in damage or injury to persons, animals or crops, or other unintended consequences.

DO NOT apply PROPANIL 60 DF within 14 days before or after insecticide applications because serious damage to rice may occur.

Water drained from treated rice fields must not be used to irrigate other crops or be released within ½ mile upstream of a potable water intake in flowing water (i.e. river, stream, etc.) or within ½ mile of a potable water intake in a standing body of water (i.e. lake, pond or reservoir).

#### **GENERAL INFORMATION**

#### **WEEDS CONTROLLED**

Barnyardgrass (watergrass) Brachiaria (signalgrass)

Coffeeweed
Crabgrass
Croton
Curly indigo
Foxtail
Goosegrass
Gulf cockspur

Hoorahgrass

Mexicanweed Millet (Texas) Panicum (Texas)

Paragrass Pigweed

Rice field bulrush

Sesbania hemp (coffeebean) Smallflower umbrella plant

Sourdock Spearhead Wiregrass Echinochloa crus-galli Brachiaria platyphylla Sesbania herbacea Digitaria spp. Croton spp.

Aeschynomene virginica

Setaria spp. Eleusine indica

Echinochloa crus-pavonis
Fimbristylis miliacea
Caperonia castanifolia
Urochloa texana
Panicum texanum
Urochloa mutica
Amaranthus spp.
Scirpus mucronatus
Sesbania exaltata

Cyperus difformis Rumex crispus Phacelia hastate Aristida spp.

\*In isolated instances, biotypes of Barnyardgrass may develop that cannot be effectively controlled by Propanil alone. Where these biotypes are known or suspected to be present and are found in a mixed weed population in which **PROPANIL 60 DF** is effective, a tank mixture of **PROPANIL 60 DF** herbicide at 6.7 lbs/acre (4lbs active) with either Prowl ® at 1.5 to 2 pints/A, Bolero ® 8EC at 3 to 4 pints/A or Facet ® at labeled rates is recommended to control Barnyardgrass (up to 3-leaf stage). (The above directions are for use on rice grown in the southern United States only.)

Read and observe all label directions before using. When tank mixing, always read all individual manufacturers labels. In interpreting all labels for the tank mixture, the most restrictive situations must apply.

(PROPANIL 60 DF will not control arrowhead, Bermudagrass, cattail, ducksalad, Johnsongrass, nutgrass, red rice and sprangletop.)

PROPANIL 60 DF is used for postemergence control of broadleaf and grass weeds in RICE fields.

Several important factors should be taken into account to achieve a high efficiency of selective weed control with **PROPANIL 60 DF**. These include uniform application, growth stage and weather conditions. To assure uniform application, mix the prescribed amount of **PROPANIL 60 DF** with a sufficient volume of water to provide thorough coverage of target area. For aerial application use approximately 10 gallons of water, or for surface (ground) applications 20-30 gallons 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. Proper field preparation is essential to ascertain a relatively clod free and level surface 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 **PROPANIL 60 DF**. 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:**

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.

<u>Temperature</u>: 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**

PROPANIL 60 DF normally requires 8 hours of DIRECT sunlight for absorption into target weeds. However many atmospheric and environmental factors can affect absorption into the target weed. It is highly recommended that application of PROPANIL 60 DF be planned so that the applied product remains in contact with the leaf surfaces for at least 48 hours prior to rainfall. Historically, morning applications of propanil products including PROPANIL 60 DF have produced better results in weed control.

#### Wind

Although **PROPANIL 60 DF** is less susceptible to drift than solvent-based propanil products, application should be avoided if wind velocity is high enough to cause drift or irregular spray patterns.

#### Relative Humidity

**PROPANIL 60 DF** 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 low humidity, higher spray volumes, 12-15 gallons per acre should be used when applied aerially.

# SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator and the grower. The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions. The distance from the outer most nozzles on the boom must not exceed ¾ 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.

Apply only when the 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 the ground or crop canopy.

#### Additional requirements 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.

The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.

Do not make any type of application 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.

**IMPORTANCE OF 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.)

In California, applications of **Propanil 60 DF** must conform to the conditions set forth in the California Code of Regulations, Section 6462.

#### **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 nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles of increasing pressure.

**Number Orientation:** Orienting nozzles so that the spray is released backward 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.

**Nozzle Type:** Use nozzle type that is designed for the intended application. With most nozzle types, narrow spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

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 ¾ 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 up and 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 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Applications should be avoided below 2 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 spray drift.

#### TEMPERATURE AND HUMIDITY

When making applications in low relative humidity, set up application 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 due to high drift potential. 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 the 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**

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive area).

#### **EMERGENCY RELEASE PROVISIONS**

Water holding (discharge) intervals for flood water following propanil application 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 of 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 provisions.

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.

#### **ADJUVANT AND APPLICATION AIDS:**

When **PROPANIL 60 DF** is used alone (not in combination with any other postemergent rice herbicides), a low viscosity crop oil concentrate or surfactant may be used to improve wetting of foliage and increase weed control. High viscosity crop oil concentrate products are NOT recommended for use with **PROPANIL 60 DF**. 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 **PROPANIL 60 DF** 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). Refer to crop oil or surfactant label for proper use rate.

#### **BROADCAST RATE**

Apply 5 pounds **PROPANIL 60 DF** per acre when most grasses have reached 1 to 3-leaf stage. Use 6.67 to 10 pounds **PROPANIL 60 DF** 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 the 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: PROPANIL 60 DF** applied to rice after the 4-leaf stage may cause visible injury under some climatic conditions. Rice plants usually outgrow such injury.

IN CALIFORNIA: Use PROPANIL 60 DF only where rice fields are not 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. Do not apply PROPANIL 60 DF within 14 days before or after insecticide applications. Serious injury to rice may occur.

#### SPRAY MIXTURE PREPARATION

#### Wet Spray Application

Thoroughly mix **PROPANIL 60 DF** 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 may be used with **PROPANIL 60 DF**. 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, reagitate it before application. Always apply **PROPANIL 60 DF** spray preparations within 24 hours of product mixing, or the product may degrade.

Do not store **PROPANIL 60 DF** in nurse tanks or any other tanks used to store or transport clean water. Install one-way valves (anti-siphoning 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 **PROPANIL 60 DF** 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 60 DF.
- 3. Continue agitation until the PROPANIL 60 DF is fully dispersed, at least 5 minutes.
- Once the PROPANIL 60 DF is fully dispersed, maintain agitation and continue filling the tank with water. The PROPANIL 60 DF 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 settling occurs, thoroughly re-agitate before using.
- 7. Apply **PROPANIL 60 DF** spray preparations within 24 hours of product mixing, or the product may degrade.

If **PROPANIL 60 DF** and a tank mix partner are to be applied in multiple loads, pre-slurry the **PROPANIL 60 DF** in clean water prior to adding to the tank. This will prevent the tank mix partner from interfering with the dissolution of the **PROPANIL 60 DF**:

#### SPRAYER CLEANUP

Before using equipment exposed to **PROPANIL 60 DF** to treat another crop, clean the sprayer and any other equipment (loading hoses, batch tanks, etc.) using the following procedure:

- Steam-clean tank using a non-chlorine-based detergent, 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 Nutrasol at 32 oz. per 100 gallons 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.
- 4. Rinse tanks, hoses and nozzles with clean water to remove 'Nutrasol'.

- 5. Fill the tank one-half full with clean water and add 1 gallon 21% ammonia or 7 gallons 3% ammonia per 100 gallon 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 **PROPANIL 60 DF** 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 set 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 **PROPANIL 60 DF**.

#### **CONDITIONS OF SALE AND WARRANTY**

RICECO 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 RiceCo or the seller. RiceCo 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. RICECO MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. In no case shall RiceCo or the Seller be liable for consequential, special or indirect damage 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 RiceCo representative.



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