

03 AUG 1992

Jackie DiMaggio
 K-I Chemical U.S.A., Inc.
 c/o Valent U.S.A. Corporation
 1333 N. California Blvd., Suite 600
 Walnut Creek, CA 94596-8025

Dear Ms. DiMaggio:

Subject: Revised Label - Remove Listing of Rice States
 Bolero 8 EC
 EPA Registration No. 63588-6
 Your Submission Dated June 19, 1992

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable. A stamped copy is enclosed for your records. Please submit three (3) final printed copies for the above mentioned label.

Please note that the Agency letter dated March 17, 1992 required additional label statements concerning restrictive use wording with rice to protect the endangered fat pocketbook pearly mussel. We still await your response to these items.

Sincerely yours,

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

Enclosure

CC: DAN RIEDER (EEB)

COMMUNICATIONS							
SYMBOL	H7505C						
REFRAME	D. KAMM						
DATE	7/29/92						

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS & DOMESTIC ANIMALS
CAUTION**

Causes eye irritation. Harmful if swallowed. Avoid contact with eyes, skin and clothing. Avoid breathing spray mist.

STATEMENT OF PRACTICAL TREATMENT

In case of eye contact, wash eyes immediately with plenty of water. See a doctor if irritation persists. If swallowed, give a large amount of water to drink, make person vomit, and call a doctor.

Note to Physicians: Emergency Information — call 1-800-457-2022.

ENVIRONMENTAL HAZARDS

This product is toxic to shrimp. Do not apply directly to lakes, streams, ponds, tidal marshes and estuaries. Do not contaminate water by cleaning of equipment or disposal of wastes.

The use of BOLERO 8 EC on rice is restricted to protect the endangered fat pocketbook pearly mussel (*Potamius capax*) and its habitat. Use is prohibited in the following areas of Arkansas.

Mississippi County — Within the basin that drains directly into the Right Hand Chute of Little River, south of Big Lake National Wildlife Refuge.

Poinsett County — Between Crowley's Ridge and the levee east of the Right Hand Chute of Little River and the St. Francis Floodway. Use is also prohibited west of Rt. 140 and north of Rt. 63 at the siphon near Marked Tree. Except that the prohibited area does not include the area bounded by Arkansas highway 373 on the west, highway 63 on the east and highway 14 on the south.

Cross, St. Francis and Lee Counties — Between Crowley's Ridge and the levee east of the Right Hand Chute of Little River and the St. Francis Floodway as far south as the confluence of L'Angeuille River (Lee County).

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

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

READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

STORAGE AND DISPOSAL

PROHIBITIONS

Do not contaminate water, food or feed by storage, disposal or cleaning of equipment. Open dumping is prohibited.

STORAGE

Keep pesticide in original container. Do not put concentrate or dilute into food or drink containers. Store in cool, dry place. Protect from excessive heat. For help with any spill, leak, fire or exposure involving this material, call day or night 1-800-457-2022, or Chemtrec 1-800-424-9300.

PESTICIDE DISPOSAL

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL

Triple rinse (or equivalent). Do not reuse container. Offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or dispose of by other procedures allowed by State and local authorities.

BEST AVAILABLE COPY

**BOLERO® 8 EC
(HERBICIDE)**

Active Ingredient	By Wt.
*Thiobencarb	84%
Inert Ingredients	16%
*S-[(4-chlorophenyl)methyl] diethylcarbamothioate	
Contains 8 pounds S-[(4-chlorophenyl)methyl] diethylcarbamothioate per gallon.	

BOLERO®—Reg. TM of Kumiai Chemical Industry Co., Ltd. for thiobencarb herbicide.

ACCEPTED
with COMMENTS
In EPA Letter Dated:

AUG 1992

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended for the pesticide registered under EPA Reg. No. 63588-6

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

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White Plains, New York 10606
Made in U.S.A.
R Form 10129-N EPA Est. 5905-04-1
EPA Reg. No. 63588-6

NET CONTENTS 5 GALLONS

DIRECTIONS
Do not apply this product to

~~RICE WEED CONTROL IN MISSOURI AND ARKANSAS~~

GENERAL INFORMATION

BOLERO 8 EC applied late in weeds in rice. The Propanil Propanil tank mixture increases control of weeds listed. BOLERO 8 EC plus Propanil tank mixture of some weeds up to 5 weeks. Hemp Sesbania, Northern or grass or Pitted Morningglory non-flooded fields only, apply rice is in the 2 leaf stage sealed and wet at the time stressed rice. Temporary injury certain conditions.

DRY-SEEDED RICE

Late Preemergence Application — For control of Barnyardgrass (Echinochloa crus-galli), Sprangletop (Leptochloa Fall Panicum (Panicum dichotomum), Eclipta (Eclipta alba) spp.); Apply BOLERO 8 EC generally this would be 5 to 8 Apply 4 pts. of BOLERO 8 EC sealed by rainfall or by flus beds free of large clods. Scaevola. Do not apply BOLERO 8 EC to cracked soil.

Early Postemergence Application

Watergrass: Apply 4 pts. of BOLERO 8 EC when grass has developed no further than the 2 leaf stage at time of application.

Early Postemergence Application

For control of Barnyardgrass, Signalgrass (Brachiaria plantaginea), Duckweed (Wolffia spp.), Pigeonwheat (Echinochloa polystachya), C. iria parvula, Horragrass (Panicum polyanthemum), Northern or (Panicum polyanthemum), Dryflower, Eclipta (Eclipta alba).

1. Application to Wet Soil

Apply 4 pts. of BOLERO 8 EC plus 2 to 3 qts. of Propanil at the 2 leaf stage of dryland rice, aquatics less than 2" tall. Rice may be in the 2 leaf stage at time of application. Soil should be wet at the time of application.

2. Application to Dry Clay

2 to 3 Leaf Stage — Apply 4 pts. of BOLERO 8 EC plus 2 to 3 qts. of Propanil at the 2 leaf stage of dryland rice, aquatics less than 2" tall. At the time of application, rice should have been sealed by rain or other means. Rice should be in the 2 leaf stage at time of application or a reduction in yield can be expected. Do not apply BOLERO 8 EC to cracked soil.

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

~~RICE WEED CONTROL IN TEXAS, LOUISIANA, MISSISSIPPI,
MISSOURI AND ARKANSAS.~~

GENERAL INFORMATION

BOLERO 8 EC applied late preemergence will control many weeds in rice. The Propanil component of **BOLERO 8 EC** plus Propanil tank mixture increases postemergence activity for control of weeds listed. **BOLERO 8 EC** will provide residual control of some weeds up to 5 weeks following application. The **BOLERO 8 EC** plus Propanil tank mixture will not prevent reinfestation of Hemp Sesbania, Northern or Indian Jointvetch, Broadleaf Signalgrass or Pitted Morningglory. For water-seeded rice, apply to non-flooded fields only, application should not be made before rice is in the 2 leaf stage of development and soils should be sealed and wet at the time of application. Do not apply to stressed rice. Temporary injury to seedling rice may occur under certain conditions.

DRY-SEEDED RICE

Late Preemergence Application (Prior to rice and weed emergence) — For control of Barnyardgrass, Junglerice (*Echinochloa* spp.), Sprangletop (*Leptochloa* spp.), Crabgrass (*Digitaria* spp.), Fall Panicum (*Panicum dichotomiflorum*), Dayflower (*Commelina communis*), Eclipta (*Eclipta alba*) and False Pimpernel (*Lindernia* spp.): Apply **BOLERO 8 EC** 1 to 5 days prior to rice emergence; generally this would be 5 to 9 days after planting of the rice. Apply 4 pts. of **BOLERO 8 EC** per acre after soils have been sealed by rainfall or by flushing. Apply to well prepared seedbeds free of large clods. Soils should be wet at time of application. Do not apply **BOLERO 8 EC** as a preemergence treatment to cracked soil.

Early Postemergence Application — For control of emerged Watergrass: Apply 4 pts. of **BOLERO 8 EC** per acre when Watergrass has developed no further than the 2 leaf stage. Rice may be fully emerged at time of application. Soil should be wet at time of application.

Early Postemergence Application in Combination with Propanil — For control of Barnyardgrass, Junglerice, Sprangletop, Broadleaf Signalgrass (*Brochiaria platyphylla*), Crabgrass, Fall Panicum, Duckweed (*Heteranthera* spp.), Redstem (*Ammannia* spp.), Waterhyssop (*Bacopa rotundifolia*), False Pimpernel, Flatsedge (*Cyperus erythrorhizos*, *C. iria*), Spikerush (*Eleocharis obtusa*, *E. parvula*), Horrahgrass (*Fimbristylis* spp.), Hemp Sesbania (*Sesbania exaltata*, Northern and Indian Jointvetch (*Aeschynomene* spp.), Dayflower, Eclipta and Pitted Morningglory (*Impatiens lacunosa*):

1. **Application to Wet Soil** — Apply 3 pts. per acre of **BOLERO 8 EC** plus 2 to 3 qts. of Propanil 4 E per acre for emerged grasses at the 2 leaf stage of development or less (Sprangletop less than 1/2"), aquatic less than 1/2" tall and broadleaf weeds less than 2" tall. Rice may be emerged at the time of application. Soil should be wet at the time of application.

OR

2. **Application to Dry Clay or Silty Loom Soils and Rice in the 2 to 3 Leaf Stage** — Apply 3 pts. per acre of **BOLERO 8 EC** plus 2 to 3 qts. of Propanil 4 E per acre for emerged grasses at the 2 leaf stage of development or less (Sprangletop less than 1/2"), aquatic less than 1/2" tall and broadleaf weeds less than 2" tall. At the time of application, the soil must have previously been sealed by rain or flushing and should not be cracked. Rice should be in the 2 to 3 leaf stage of development. The soil must be wet by rain or flushing within 3 days after application or a reduction in initial control and residual activity can be expected. Do not apply to stressed rice as it may be seriously injured or killed. If a flush is used to wet the soil or

heavy rains move quickly through the flood gates, lack of weed control around the gates may be evident.

OR

3. **Split Application** — Apply **BOLERO 8 EC** alone as a Late Preemergence Application followed by a tank mixture with Propanil as an early postemergence application to dry seeded rice on a smooth, wet soil surface in a split application schedule as:

Split Application Technique — Apply 2 pts. per acre of **BOLERO 8 EC** as a late preemergence application 1 to 5 days before rice emerges (usually 5 to 9 days after seeding) and prior to weed emergence. Soil surfaces should be well prepared and free of large clods. This application should be followed in 10 to 14 days by an early postemergence application of 2 pts. per acre of **BOLERO 8 EC** plus 2 to 3 qts. per acre of Propanil 4 E. Emerged grasses should be in the 1 to 2 leaf stage or less (Sprangletop less than 1/2"), aquatic less than 1/2" tall and broadleaf weeds less than 2" tall. Rice may be emerged at the time of the early postemergence application. Soil should be wet at the time of application.

WATER-SEEDED RICE

Early Postemergence — For control of Barnyardgrass, Junglerice, Sprangletop, Broadleaf Signalgrass, Crabgrass, Fall Panicum, Duckweed, Redstem, Waterhyssop, False Pimpernel, Flatsedge, Spikerush, Horrahgrass, Hemp Sesbania, Northern and Indian Jointgrass, Dayflower, Eclipta and Pitted Morningglory: Apply to non-flooded fields only. Apply 3 pts. of **BOLERO 8 EC** per acre plus 2 to 3 qts. of Propanil 4 E for emerged grasses at the 2 leaf stage of development or less (Sprangletop less than 1/2") broadleaf weeds less than 2" tall and aquatic less than 1/2" tall. Application should not be made before rice is in the 2 leaf stage of development and soil should be sealed and wet at the time of application.

Do not apply **BOLERO 8 EC** to stressed rice. Do not apply **BOLERO 8 EC** to fields with exposed seed as exposed seed will be killed. Do not apply **BOLERO 8 EC** to second crop (stubble crop) rice.

Water Management—After application, flush the fields as often as necessary to prevent crusting and drying of the soil. Fields should be flooded as soon as the rice plants will tolerate permanent flooding.

Application Equipment

Aircraft: Apply **BOLERO 8 EC** in no less than 10 gals. spray mix per acre.

Ground Sprayers: Apply in 10 to 20 gals. of total spray mix per acre.

Precautions: Do not apply more than 4 lbs. active ingredient per acre per year. Do not plant subsequent crops in treated fields within 6 months of last application. Do not overlap or double spray ends of field. Avoid drift to non-target areas. Do not use in fields where fall farming of crayfish will be practiced. Do not use adjacent to catfish ponds. In Texas and other areas where double cropping is the agricultural practice, do not apply to a second stubble rice crop. Water drained directly from treated fields must not be used to irrigate other crops.

Do not apply **BOLERO 8 EC** plus Propanil mixture within 14 days before or after organophosphate or carbamate insecticide application. Do not apply tank mix with Propanil when rain is expected within 6 hours. Rice seedlings with succulent growth may exhibit temporary foliar burn which may be greater than conventional Propanil application but usually recover after 10 to 14 days. Do not mix liquid nitrogen, zinc or surfactants with **BOLERO 8 EC** alone or when mixed with Propanil.

This product can be mixed with Propanil for use on rice in accordance with the more restrictive of label limitations and precautions. No label dosage rates should be exceeded. This

product cannot be mixed with any product containing a label prohibition against such mixing.

Application to stressed rice can result in stand reduction, chlorosis, growth inhibition, delayed maturity and/or leaf desiccation. Stress factors include but are not limited to the following: Daily temperatures below 65° F., or above 95° F., problem soils, (i.e., Zn deficiency, high salt content, high pH.), excessive moisture, (i.e., above field capacity while rice seed is germinating), drought conditions, poor field drainage or deep water after application.

VEGETABLES

CELERY — Grown on muck soil (Florida only): For control of Common Purslane, Barnyardgrass and Goosegrass and suppression of Common Lamquarters and Pigweed. Make application of 4 qts. **BOLERO 8 EC** per acre after transplanting and prior to weed germination/emergence. Apply with ground equipment in 30 to 40 gals. of water per acre no later than 10 days after transplanting. For best performance, soil must be wet at the time of application. Additional moisture (overhead irrigation) after application may improve performance. Celery must be trimmed (tops removed) at harvest. Do not use tips for celery flakes. Do not apply **BOLERO 8 EC** within 70 days of harvest.

ENDIVE (ESCAROLE), LETTUCE — Grown on muck soil (Florida only): For control of Common Purslane and Barnyardgrass and suppression of Pigweed. Make application of 3 qts. **BOLERO 8 EC** per acre after planting and prior to weed germination/emergence (no later than 10 days after planting). Apply by either broadcast or a directed, shielded spray (to row middles) with ground equipment in 30 to 50 gals. of water per acre. For best performance soil must be wet at the time of application. Additional moisture (overhead irrigation) soon after application may improve performance. **BOLERO 8 EC** can cause crop stunting if the crop seed zone is treated (particularly under high temperature and moisture conditions). Do not apply **BOLERO 8 EC** within 60 days of harvest.

PRECAUTIONS: Do not rotate crops other than celery, endive (escarole) and lettuce into **BOLERO** treated fields within 4 months of **BOLERO** application. Do not feed crop or crop remains to livestock or allow grazing in treated areas.

Do not apply under conditions involving possible drift to food, forage or other plantings that might be damaged or the crops thereof rendered unfit for sale, use or consumption.

IMPORTANT INFORMATION. READ BEFORE USING PRODUCT.

LIMITED WARRANTY: 1. K-I Chemical U.S.A., Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for use under average conditions when used strictly in accordance with the directions on the labeling. K-I Chemical does not make nor authorizes any agent or representative to make, any other warranty, guarantee or representation, express or implied, concerning this product. Specifically, **NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE IS MADE.**

2. Critical and unforeseeable factors beyond K-I Chemical's control prevent it from eliminating all risks in connection with the use of this product. Such risks include, but are not limited to, damage to plants and crops to which product is applied, lack of complete control over the handling and application of this product, and damage caused by drift to other plants or crops. Such risks occur even though the product is reasonably fit under average conditions for the uses stated on the labeling and even though label directions are followed. Buyer and user acknowledge and assume all risks and liability (except those assumed by K-I Chemical under 1 above) resulting from handling, storage, and use of the product.

3. Precautions stated on the labeling should be followed to avoid hazardous exposure to the product.

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