

7/21/2010

1/17



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

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

JUL 21 2010

Ms Linda Obrestad  
Valent USA Corporation  
1600 Riviera Ave. Suite 200  
Walnut Creek, CA 94596-8025

Subject: Label Notification(s) for Pesticide Registration Notice 2007-4 and 2001-5 and 98-10  
Storage & Disposal Update , Environmental Hazards and Warranty Statements update

Dear Registrant:

The Agency is in receipt of your Application(s) for Pesticide Notification under Pesticide Registration Notice (PRN) 2007-4, 2001-5 and 98-10 dated August 12, 2009 for:

**EPA Registration 63588-6**

**Bolero ® 8 EC (Herbicide)**

The Registration Division (RD) has conducted a review of this request for applicability under PRN 2007-4 , 2001-5 and 98-10, and finds that the label change(s) requested falls within the scope of PRN 2007-4, 2001-5 and 98-10. The label has been date-stamped "Notification" and will be placed in our records.

Please be reminded that 40 CFR Part 156.140(a)(4) requires that a batch code, lot number, or other code identifying the batch of the pesticide distributed and sold be placed on nonrefillable containers. The code may appear either on the label (and can be added by non-notification/PR Notice 98-10) or durably marked on the container itself.

If you have any questions, please call me directly at 703-305-5335 or Banza Djapao of my staff at 703-305-7269.

Sincerely,

*Rachel A. Holloman, for*  
Paul Mastradone, Acting Leader  
Notifications & Minor Formulations Team Leader  
Registration Division (7505P)  
Office of Pesticide Programs

217



United States  
**Environmental Protection Agency**  
 Washington, DC 20460

Registration  
 Amendment  
 Other

OPP Identifier Number

**Application for Pesticide - Section I**

1. Company/Product Number 63588-6	2. EPA Product Manager Kathrine Montague	3. Proposed Classification <input type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Bolero 8 EC (Herbicide)	PM# 23	
5. Name and Address of Applicant (Include ZIP Code) Valent U.S.A. Company. agent for K-I Chemical USA 1600 Riviera Ave., Suite 200 Walnut Creek, CA 94596-8025 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

**Section - II**

Amendment - Explain below.  Final printed labels in response to Agency letter dated \_\_\_\_\_  
 Resubmission in response to Agency letter dated \_\_\_\_\_  "Me Too" Application.  
 Notification - Explain below.  Other - Explain below.

**NOTIFICATION**  
**JUL 21 2010**

**Explanation:** Use additional page(s) if necessary. (For section I and Section II.)

NOTIFICATION: Added Resistance Management according to PR-Notice 2001-5, updated the Container Disposal according to PR-Notice 2007-4 and updated the Warranty/Disclaimer statement with EPA approved language.

**Section - III**

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Metal	<input checked="" type="checkbox"/> Plastic
* Certification must be submitted		If "Yes" Unit Packaging wgt. No. per container	If "Yes" Package wgt. No. per container	<input type="checkbox"/> Glass	<input type="checkbox"/> Paper
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 15 Gallon		5. Location of Label Directions <input checked="" type="checkbox"/> On Labeling	
6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled			<input type="checkbox"/> Other _____		

**Section - IV**

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Sally S. Christopher	Title Regulatory Analyst	Telephone No. (Include Area Code) 925-256-2710
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received <b>(Stamped)</b>
2. Signature <i>Sally S. Christopher</i>	3. Title Regulatory Analyst	
4. Typed Name Sally S. Christopher	5. Date July 21, 2010	

3917



United States  
**Environmental Protection Agency**  
 Washington, DC 20460

Registration  
 Amendment  
 Other

OPP Identifier Number

**Application for Pesticide - Section I**

1. Company/Product Number 63588-6	2. EPA Product Manager Ms. Joanne Miller	3. Proposed Classification <input type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Bolero 8 EC (Herbicide)	PM# 23	
5. Name and Address of Applicant (Include ZIP Code) Valent U.S.A. Corp.as agent for K-I Chemical USA 1600 Riviera Ave. Suite 200 Walnut Creek, CA 94596-8025 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

**Section - II**

Amendment - Explain below.  Final printed labels in response to Agency letter dated \_\_\_\_\_

Resubmission in response to Agency letter dated \_\_\_\_\_  "Me Too" Application.

Notification - Explain below.  Other - Explain below.

**NOTIFICATION**  
JUL 21 2010

**Explanation:** Use additional page(s) if necessary. (For section I and Section II.)

NOTIFICATION: Added Resistance Management according to PR- Notice 2001-5, updated the Container Disposal according to PR-Notice 2007-4 and updated the Warranty/Disclaimer statement with EPA approved language.

**Section - III**

1. Material This Product Will Be Packaged In:

Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2. Type of Container <input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____
* Certification must be submitted		If "Yes" Unit Packaging wgt. No. per container	If "Yes" Package wgt No. per container

3. Location of Net Contents Information  
 Label  Container

4. Size(s) Retail Container

5. Location of Label Directions  
 On Labeling

6. Manner in Which Label is Affixed to Product  
 Lithograph Paper glued Stenciled  Other \_\_\_\_\_

**Section - IV**

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)

Name Linda Obrestad	Title Labeling Specialist	Telephone No. (Include Area Code) (925) 256-2791
------------------------	------------------------------	---

**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 knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

2. Signature <i>Linda Obrestad</i>	3. Title Labeling Specialist	6. Date Application Received (Stamped)
4. Typed Name Linda Obrestad	5. Date August 12, 2009	

5/5



August 12, 2009

**Bolero® 8 EC Herbicide**  
**EPA Reg. No. 59639-79**  
**EPA Reg. No. 63588-6**  
**NOTIFICATION**

Ms. Joanne Miller (Team 23)  
Herbicide Branch (NOTIF)  
Document Processing Deck (7504P)  
Office of Pesticide Programs  
U.S. Environmental Protection Agency  
Room S4900, One Potomac Yard  
2777 S. Crystal Drive  
Arlington, Virginia 22202

Dear Ms. Miller:


Valent U.S.A. Corporation and as agent for KI Chemical USA Inc. would like to update our product labels for Bolero 8 EC (EPA Reg. No's. 59639-79 and 63588-6). The following changes have been made to these two product labels:


1. Addition of Resistance Management according to PR-Notice 2001-5
2. Updated the Container Disposal according to PR-Notice 2007-4
3. Updated the Warranty/Disclaimer statement with EPA approved language.

I have enclosed the following documents to support both product registrations for this Notification submission:

- Pesticide applications (Form 8570-1)
- Certification Statements consistent with the provisions of PR-Notice 98-10
- One (1) copy of both proposed labels
- One (1) copy of both proposed labels with redline additions/strike through
- A CD with both proposed labels in PDF format and the statement of Certification with Respect to Label Integrity

If you should have any questions please contact me at (925) 256-2791 or email: [linda.obrestad@valent.com](mailto:linda.obrestad@valent.com) or Ms. Regaine Pereira at (925) 256-2786 or email: [regaine.pereira@valent.com](mailto:regaine.pereira@valent.com) .

Sincerely,  
  
 Linda Obrestad  
 Labeling Specialist  
 Registration and Regulatory Affairs



Enclosures



m/c

# Certification with Respect to Label Integrity

version: 9/11/02

I certify that the information (including, but not limited to, text, tables, and graphics) contained in the electronic file identified below by file name and submitted with this certification is the same information as that on the paper copies of these documents included with this submission.

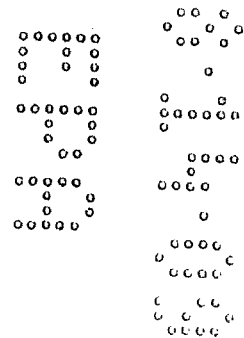
PROPOSED LABEL		
EPA Registration #	Date Submitted to EPA	Electronic file name
59639-79	20090812	059639-00079.20090812.BOL8.NOTIF.pdf
63588-6	20090812	063588-00006.20090812.BOL8.NOTIF.pdf

I certify that the statements that I have made on this form are true, accurate, and complete. I acknowledge that any knowingly false or misleading statements may be punishable by fine or imprisonment or both under applicable law.

Linda Obrestad  
Signature

August 12, 2009  
Date

Linda Obrestad  
Labeling Specialist  
Registration and Regulatory Affairs  
Valent U.S.A. Corporation





6/7

August 12, 2009

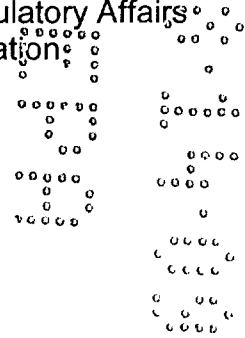
Bolero® 8 EC Herbicide  
EPA Reg No. 63588-6  
Notification

### CERTIFICATION STATEMENT

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.

A handwritten signature in black ink that reads "Linda Obrestad".

Linda Obrestad  
Labeling Specialist  
Registration and Regulatory Affairs  
Valent U.S.A. Corporation



7/17

# K-I CHEMICAL CO. LTD.

NOTIFICATION - REDLINE COPY

GROUP  HERBICIDE

## BOLERO<sup>®</sup> 8 EC (HERBICIDE)

NOTIFICATION  
JUL 21 2010

Active Ingredient	By Wt.
*Thiobencarb .....	84%
Other Ingredients .....	16%
Total .....	100%

\*S-[(4-chlorophenyl)methyl] diethylcarbamothioate

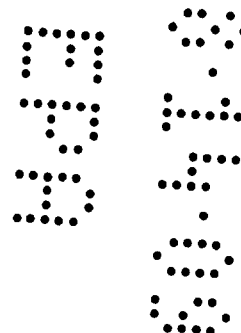
The product contains the active ingredient thiobencarb at 8 lbs/gal

**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

SEE NEXT PAGE FOR ADDITIONAL PRECAUTIONARY STATEMENTS

NET CONTENTS 15 GALLONS



815

# PRECAUTIONARY STATEMENTS

## HAZARDS TO HUMANS & DOMESTIC ANIMALS

### CAUTION

Harmful if swallowed or inhaled. Causes moderate eye irritation. Avoid contact with eyes or clothing.

#### 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 do so by a poison control center or doctor.
  - Do not give anything by mouth to an unconscious person.
- 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.
- If in eyes:**
  - Hold eye open and rinse slowly and gently with water for 15-20 minutes.
  - Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye.
  - Call a poison control center or doctor for treatment advice.
- If on skin or clothing:**
  - 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.

#### HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact **800-892-0099** for emergency medical treatment information.

#### NOTE TO PHYSICIAN

Thiobencarb is a cholinesterase inhibitor. If signs of cholinesterase inhibition appear, atropine is antidotal.

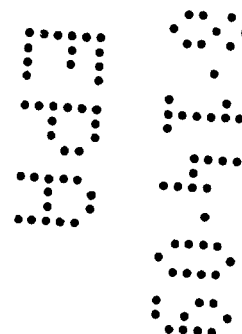
#### PERSONAL PROTECTIVE EQUIPMENT (PPE):

Some materials that are chemical-resistant to this product are Barrier Laminate, Butyl Rubber ≥ 14 mils, Nitrile Rubber ≥ 14 mils or Viton ≥ 14 mils. If you want more options, follow the instructions for category F on an EPA chemical resistance category selection chart.

**Applicators and Flaggers must wear:** long sleeved shirt and long pants, shoes plus socks.

**Mixers and Loaders must wear:** long sleeved shirt and long pants, chemical-resistant gloves, such as Barrier Laminate, Butyl Rubber ≥ 14 mils, Nitrile Rubber ≥ 14 mils or Viton ≥ 14 mils, chemical-resistant apron and shoes plus socks.

**For other handling activities and in case of a spill or other emergency exposure, handlers must wear:** coveralls over long sleeved shirt and long pants, chemical-resistant gloves such as Barrier Laminate, Butyl Rubber ≥ 14 mils, Nitrile Rubber ≥ 14 mils or Viton ≥ 14 mils, chemical-resistant footwear and chemical-resistant apron when cleaning equipment.





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

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

**All workers must wear:** waterproof boots plus socks when entering flooded fields following treatment.

**Engineering Controls Statements:** When making application of Bolero® 8 EC Herbicide using aerial application equipment, mixers and loaders are required to use closed systems. The closed system must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4). Applicators and flaggers are required to use enclosed cockpits. The closed system must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(5-6).

### 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 product is toxic to shrimp. For terrestrial uses, do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

The use of *Bolero 8 EC* on rice is restricted to protect the endangered fat pocketbook pearly mussel (*Potamilus capax*) and its habitat.

**In Arkansas**, the following use prohibitions apply in Cross, Lee, Mississippi, Poinsett and St. Francis Counties:

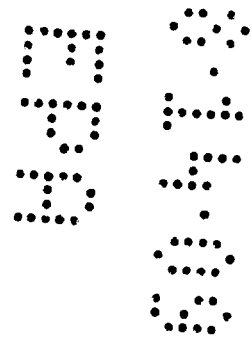
1. *Bolero 8 EC* will not be applied aurally within one mile of the St. Francis Floodway (west branch of the St. Francis River) where the fat pocketbook pearly mussel is known to occur;
2. *Bolero 8 EC* will not be ground applied within 1,000 feet of the St. Francis Floodway where the fat pocketbook pearly mussel is known to occur;
3. Rice fields will not be flooded for at least 3 days after application, and water application on the fields is not to be drained for at least 7 days after flooding a treated field in areas where waters drain into the St. Francis Floodway where the fat pocketbook pearly mussel is known to occur; and
4. Should on-going distributional surveys of the fat pocketbook pearly mussel find additional populations in the St. Francis Floodway, or other waters, the same restrictions would apply to these waters.

**In Louisiana**, do not apply this product south of the Intercoastal Waterway.

**In Texas**, do not apply this product within two (2) miles from the shorelines of Matagorda Bay or within two (2) miles from the shorelines of Galveston Bay.

### PHYSICAL OR CHEMICAL HAZARDS

Combustible. Do not 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.**

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

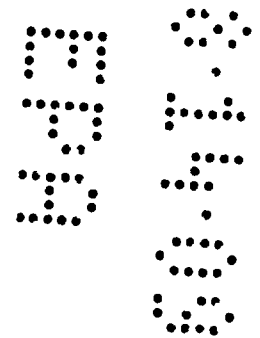
**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 7 days.

PPE required for entry within 24 hours after application 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 of any waterproof material and waterproof boots plus socks.

PPE required for entry from 24 hours until 7 days following application 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: long pants, sleeved shirt and waterproof boots plus socks.



11/1

**DISCLAIMER, RISKS OF USING THIS PRODUCT,  
LIMITED WARRANTY  
AND LIMITATION OF LIABILITY**

**IMPORTANT: Read the entire Label including this Disclaimer, Risks of Using this Product, Limited Warranty, and Limitation of Liability before using this product. If the terms are not acceptable THEN DO NOT USE THE PRODUCT; rather, return the unopened product within 15 days of purchase for a refund of the purchase price.**

**RISKS OF USING THIS PRODUCT**

The Buyer and User (referred to collectively herein as "Buyer") of this product should be aware that there are inherent unintended risks associated with the use of this product which are impossible to eliminate. These risks include, but are not limited to, injury to plants and crops to which this product is applied, lack of control of the target pests or weeds, resistance of the target pest or weeds to this product, injury caused by drift, and injury to rotational crops caused by carryover in the soil. Such risks of crop injury, non-performance, resistance or other unintended consequences are unavoidable and may result because of such factors as weather, soil conditions, disease, moisture conditions, irrigation practices, condition of the crop at the time of application, presence of other materials either applied in the tank mix with this product or prior to application of this product, cultural practices or the manner of use or application, (or a combination of such factors) all of which are factors beyond the control of K-I Chemical. The Buyer should be aware that these inherent unintended risks may reduce the harvested yield of the crop in all or a portion of the treated acreage, or otherwise affect the crop such that additional care, treatment and expense are required to take the crop to harvest. If the Buyer chooses not to accept these risks, THEN THIS PRODUCT SHOULD NOT BE APPLIED. By applying this product Buyer acknowledges and accepts these inherent unintended risks AND TO THE FULLEST EXTENT ALLOWED BY LAW, AGREES THAT ALL SUCH RISKS ASSOCIATED WITH THE APPLICATION AND USE ARE ASSUMED BY THE BUYER.

K-I Chemical shall not be responsible for losses or damages (including, but not limited to, loss of yield, increased expenses of farming the crop or such incidental, consequential or special damages that may be claimed) resulting from use of this product in any manner not set forth on the label. Buyer assumes all risks associated with the use of this product in any manner or under conditions not specifically directed or approved on the label.

**LIMITED WARRANTY**

K-I Chemical warrants only that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the label, under average use conditions, when used strictly in accordance with the label and subject to the Risks of Using This Product as described above. To the extent consistent with applicable law EXCEPT AS SET FORTH ABOVE, K-I CHEMICAL MAKES NO OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED. No agent or representative of K-I Chemical or Seller is authorized to make or create any other express or implied warranty.

**LIMITATION OF LIABILITY**

~~In no event shall~~ To the fullest extent allowed by law, K-I Chemical or Seller beis not liable for any incidental, consequential, indirect or special damages resulting from the use or handling of this product. The limitation includes, but is not limited to, loss of yield on all or any portion of the treated acreage, increased care, treatment or other expenses required to take the crop to harvest, increased finance charges or altered finance ratings, emotional or mental distress and/or exemplary damages. TO THE FULLEST EXTENT ALLOWED BY LAW, THE EXCLUSIVE REMEDY OF THE BUYER, AND THE EXCLUSIVE MAXIMUM LIABILITY OF K-I CHEMICAL OR SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT SHALL BE THE RETURN OF THE PURCHASE PRICE OF THIS PRODUCT OR, AT THE ELECTION OF K-I CHEMICAL OR SELLER, THE REPLACEMENT OF THE PRODUCT.

**PROMPT NOTICE OF CLAIM**

To the extent consistent with applicable law allowing such requirements K-I Chemical must be provided notice as soon as Buyer has reason to believe it may have a claim, but in no event later than twenty-one days from date of planting, or twenty-one days from the date of application, whichever is latter, so that an immediate inspection of the affected property and growing crops can be made.

To the extent consistent with applicable law if Buyer does not notify K-I Chemical of any claims, in such period, it shall be barred from obtaining any remedy.

**NO AMENDMENTS**

K-I Chemical and Seller offer this product, and Buyer accepts it, subject to the foregoing Disclaimer, Risks of Using This Product, Limited Warranty and Limitation of Liability, which may not be modified by any oral or written agreement.

**TANK MIXES**

**NOTICE: Tank mixing of this product with any other product which is not specifically and expressly authorized by the label shall be the exclusive risk of user, applicator and/or application advisor, to the extent allowed by applicable law.**

Read and follow the entire label of each product to be used in the tank mix with this product.

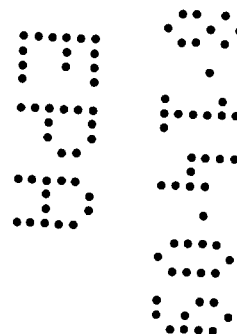
### RESISTANCE MANAGEMENT RECOMMENDATIONS

*Bolero 8 EC* is a Group 8 herbicide. Any weed population may contain or develop plants naturally resistant to *Bolero 8 EC* and other Group 8 herbicides. Weed species with acquired resistance to Group 8 herbicides may eventually dominate the weed population if Group 8 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by *Bolero 8 EC* or other Group 8 herbicides.

To delay herbicide resistance consider:

- Avoiding the consecutive use of *Bolero 8 EC* or other target site of action Group 8 herbicides that might have a similar target site of action, on the same weed species.
- Using tank mixtures or premixes with herbicides from different target site of action Groups as long as the involved products are all registered for the same use, have different sites of action and are both effective at the tank mix or prepack rate on the weed(s) of concern.
- Basing herbicide use on a comprehensive Integrated Pest Management (IPM) program.
- Monitoring treated weed populations for loss of field efficacy.
- Contacting your local extension specialist, certified crop advisors and/or manufacturer for herbicide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes.

For further information or to report suspected resistance, you may contact Valent U.S.A. Corporation at the following toll-free number: 800-682-5368.



## DIRECTIONS

- See “Engineering Control Statements” when making aerial application of *Bolero 8 EC*.
- Do not apply this product through any type of irrigation system.
- Do not apply this product to rice fields with catfish/crayfish farming.
- Do not apply this product on rice fields adjacent to catfish or crayfish ponds.
- When applying to rice fields, do not release permanent flood water within 14 days of application of this product (where weather permits).
- Avoid application of this product within 24 hours of rainfall, or when heavy rain is expected to occur within 24 hours.
- Do not mix/load or otherwise handle this product within 100 feet of aquatic habitat.

## 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.

## SPRAY DRIFT MANAGEMENT

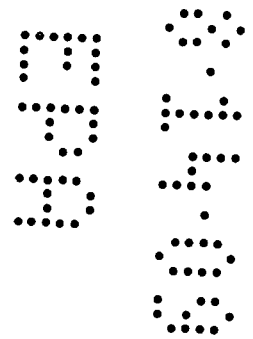
Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following Aerial Drift Reduction Advisory Information must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

**INFORMATION ON DROPLET SIZE:** The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger 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 Temperature Inversions).



**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 instead of increasing pressure.
- Number of nozzles - Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation - Orienting nozzles so that the spray is released parallel to the airstream 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 a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.
- Maintenance of Nozzles - periodic inspection and subsequent replacement of nozzles to ensure proper chemical application is recommended.

**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 not be made at a height 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.

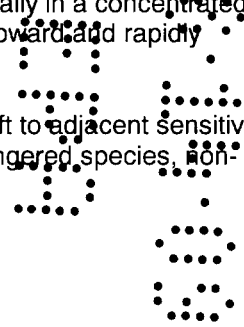
**SWATH ADJUSTMENT:** When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase,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

**WIND:** Drift potential is lowest between wind speeds of 2 -to 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application 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 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 inversion. 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, inversion 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 areas).



**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 with ground application equipment east of the Rocky Mountains and with aerial or ground application equipment in California 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 with ground application equipment east of the Rocky Mountains and with aerial or ground application equipment in California 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 (*Brachiaria platyphylla*), Crabgrass, Fall Panicum, DUCKSALAD (*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 (*Impomea locunosa*):**

1. **Application to Wet Soil** - Apply 2 1/2 pts per acre of *Bolero* 8 EC plus 2 to 3 qts of Propanil 4 E per acre with aerial or ground application equipment for emerged grasses at the 2 leaf stage of development or less (Sprangletop less than 1/2"), aquatics 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 Silt Loam Soils and Rice in the 2 to 3 Leaf Stage** - Apply 2 1/2 pts per acre of *Bolero* 8 EC plus 2 to 3 qts of Propanil 4 E per acre with aerial or ground application equipment for emerged grasses at the 2 leaf stage of development or less (Sprangletop less than 1/2"), aquatics 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 with aerial or ground application equipment 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 applied with aerial or ground application equipment. Emerged grasses should be in the 1 to 2 leaf stage or less (Sprangletop less than 1/2"), aquatics 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, Ducksalad, Redstem, Waterhyssop, False Pimpernel, Flatsedge, Spikerush, Horrahgrass, Hemp Sesbania, Northern and Indian Jointvetch, Dayflower, Eclipta and Pitted Morningglory:** Apply to non-flooded fields only. Apply 2 1/2 pts of *Bolero* 8 EC per acre plus 2 to 3 qts. of Propanil 4 E with aerial or ground application equipment for emerged grasses at the 2 leaf stage of development or less (Sprangletop less than 1/2") broadleaf weeds less than 2" tall and aquatics 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 necessary to prevent crusting and drying of the soil. Fields should be flooded as soon as the rice plants will tolerate permanent flooding. Do not release permanent flood water within 14 days after application.

**Application Equipment**

**Aircraft:** Apply *Bolero* 8 EC in no less than 10 gals spray mix per acre. Do not apply more than 2 1/2 pts or *Bolero* 8 EC per acre when using aerial application equipment east of the Rocky Mountains and no more than 4 pts. per acre in California.

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

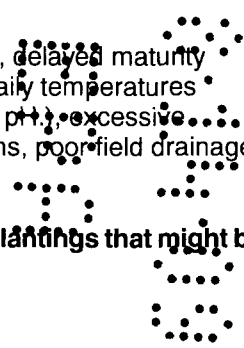
**Precautions:** Do not apply more than 2 1/2 pts of *Bolero* 8 EC per acre when using aerial application equipment east of the Rocky Mountains and no more than 4 pts per acre in California. Do not apply more than 4 lbs active ingredient per acre per year. Do not plant subsequent crops in treated fields within 6 months of last application. Do not overlap or double spray ends of field. Avoid drift to non-target areas. Do not apply to rice paddies where commercial catfish or crayfish farming is 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.

**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.**





5/17

## STORAGE AND DISPOSAL

### PROHIBITIONS

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

### PESTICIDE 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 1-800-892-0099.

### 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 incineration, or, if allowed by state and local authorities, by burning. If burned stay out of smoke.~~ Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Copyright© 2009 by K-I Chemical U.S.A. Inc.

~~BOLERO~~<sup>®</sup> ~~Reg. TM~~ Bolero is a registered trademark of Kumiai Chemical Industry Co., Ltd. for thiobencarb herbicide.

Manufactured for:

**K-I Chemical U.S.A., Inc.**

White Plains, New York 10606

Made in U.S.A.

EPA Reg. No. 63588-6

EPA Est. No.

063588-00006.20090812.BOL8.r.

