



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

February 2, 2015

Robin R. Charlton, Ph.D.
Senior Regulatory Scientist
Valent U.S.A. Corporation
1600 Riviera Ave Ste 200
Walnut Creek, CA 94596

Subject: Label Amendment –Multiple changes as listed on the correspondence letter from the registrant
Product Name: Bolero 8 EC Herbicide
EPA Registration Number: 59639-79
Application Date: September 19, 2014
Decision Number: 497025

Dear Dr. Charlton:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

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Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact Aswathy Balan by phone at 703-347-0510, or via email at balan.aswathy@epa.gov.

Sincerely,

A handwritten signature in cursive script that reads "Shaja B. Joyner".

Shaja B. Joyner, Product Manager 20
Fungicide – Herbicide Branch
Registration Division (7505P)
Office of Pesticide Programs

Enclosure



A C C E P T E D
02/02/2015
Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 59639-79

GROUP	8	HERBICIDE
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[Bracketed text is optional]

BOLERO[®] 8 EC (HERBICIDE)

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 lb/gal

Not for Use in California

KEEP OUT OF REACH OF CHILDREN

CAUTION

SEE NEXT PAGE FOR ADDITIONAL PRECAUTIONARY STATEMENTS

NET CONTENTS 15 GALLONS

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:	<ul style="list-style-type: none">• 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 to an unconscious person.
If Inhaled:	<ul style="list-style-type: none">• 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:	<ul style="list-style-type: none">• 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:	<ul style="list-style-type: none">• 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 glove materials that are chemical-resistant to this product are Barrier Laminate, Butyl Rubber \geq 14 mils, Nitrile Rubber \geq 14 mils or Viton \geq 14 mils. If you want more options, follow the instructions for category F on an EPA chemical resistance category selection chart.

Applicators and Flaggers using enclosed cabs or enclosed cockpits 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 \geq 14 mils, Nitrile Rubber \geq 14 mils or Viton \geq 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 \geq 14 mils, Nitrile Rubber \geq 14 mils or Viton \geq 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 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 cabs or 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 except as directed on this label, 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 Herbicide 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 Herbicide 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 Herbicide 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 Intracoastal 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 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, 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, long-sleeved shirt and waterproof boots plus socks.

**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 Valent. 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 AGREES THAT TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, RISKS ASSOCIATED WITH THE APPLICATION AND USE ARE ASSUMED BY THE BUYER.

To the extent consistent with applicable law, Valent 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. To the extent consistent with applicable law, 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

Valent 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 AND EXCEPT AS SET FORTH ABOVE, VALENT MAKES NO OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED.** No agent or representative of Valent or Seller is authorized to make or create any other express or implied warranty.

LIMITATION OF LIABILITY

To the extent consistent with applicable law, Valent or Seller is 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 EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE BUYER, AND THE EXCLUSIVE MAXIMUM LIABILITY OF VALENT 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 VALENT OR SELLER, THE REPLACEMENT OF THE PRODUCT.

PROMPT NOTICE OF CLAIM

To the extent consistent with applicable law allowing such requirements Valent 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 Valent of any claims, in such period, it shall be barred from obtaining any remedy.

NO AMENDMENTS

Valent 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, consistent with 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 Herbicide is a Group 8 herbicide. Any weed population may contain or develop plants naturally resistant to *Bolero 8 EC* Herbicide 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* Herbicide or other Group 8 herbicides.

To delay herbicide resistance consider:

- Avoiding the consecutive use of *Bolero 8 EC* Herbicide 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.

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PRODUCT INFORMATION

Bolero 8 EC Herbicide applied pre-plant, delayed preemergence or postemergence will control many weeds in rice. *Bolero* 8 EC Herbicide will provide residual control of some weeds up to 5 weeks following application. Temporary injury to seedling rice may occur under certain conditions.

Restrictions and Limitations

- Do not apply *Bolero* 8 EC Herbicide to fields with exposed seed as exposed seed will be killed.
- Do not apply to stressed rice.
- Do not apply *Bolero* 8 EC Herbicide as a preemergence treatment to cracked soil.
- Do not apply more than 2-1/2 pt of *Bolero* 8 EC Herbicide per acre when using aerial application equipment east of the Rocky Mountains.
- Do not apply more than 4 lb active ingredient per acre per year.
- See "Engineering Control Statements" when making aerial application of *Bolero* 8 EC Herbicide.
- Do not apply *Bolero* 8 EC Herbicide through any type of irrigation system.
- Do not apply to rice paddies where commercial catfish or crayfish farming is practiced.
- 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 *Bolero* 8 EC Herbicide within 100 feet of aquatic habitat.
- Do not apply under conditions involving possible drift to food, forage or other plantings that might be damaged or the crops rendered unfit for sale, use or consumption.
- Avoid drift to non-target areas.
- Do not overlap or double spray ends of field.
- 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 Herbicide plus propanil mixture within 14 days before or after organophosphate or carbamate insecticide application.
- Do not mix zinc with *Bolero* 8 EC Herbicide.
- Do not use *Bolero* 8 EC Herbicide on rice grown in fields which have been land leveled resulting in severe cuts and heavily filled areas (does not apply to normal maintenance leveling) in the past 18 months.
- Do not use *Bolero* 8 EC Herbicide on water-seeded rice grown in fields which have received chicken litter or had large amounts of green vegetative residue incorporated in the past 10 months.

Environmental Conditions and Biological Performance

Bolero 8 EC Herbicide should be used as an integral part of a weed control program in conjunction with a resistance management strategy (see “Resistance Management Recommendations” statement in this label). The mode of action is the inhibition of lipid synthesis. *Bolero* 8 EC Herbicide will, in most cases, prevent the emergence of susceptible weeds if application is made to a clean well-prepared seedbed. For optimum results from an application made prior to the emergence of susceptible weeds, rainfall or irrigation is needed to move *Bolero* 8 EC Herbicide into the soil.

Table 1. Soil Characteristics and Application Rates

SOIL TEXTURE	<i>BOLERO</i> 8 EC HERBICIDE RATES PER ACRE pt/A
COARSE: sandy loam	2.5 to 3
MEDIUM: loam, silt loam, silt, sandy clay loam	3 to 4
FINE: clay, clay loam, sandy clay, silty clay, silty clay loam,	3 to 4

Mixing and Spraying Equipment Preparation

Precaution: Do not use chlorine bleach with ammonia. Remove all traces of liquid fertilizer containing any form of ammonia or ammonium before adding any chlorine source such as chlorine bleach.

Prior to using *Bolero* 8 EC Herbicide thoroughly drain, clean and rinse all mixing and spraying equipment that will come in contact with *Bolero* 8 EC Herbicide. Follow the cleanup procedures recommended by the manufacturer of the previously sprayed product. Failure to remove all deposits of previously sprayed products may result in collection of *Bolero* 8 EC Herbicide residues and inhibit cleanup of mixing and spraying equipment after *Bolero* 8 EC Herbicide use. Failure to remove all deposits of previously sprayed products may also result in reduced efficacy of *Bolero* 8 EC Herbicide and/or crop injury.

Mixing Instructions

1. Fill the tank one-half full of clean water.
2. Begin agitation.
3. If foaming is anticipated, add defoamer prior to the addition of the surfactant. Add the required amount of *Bolero* 8 EC Herbicide.
4. Add tank mix partner (*if any*) in the following order:
 - a. Water soluble packets (preferably added before the surfactant)
 - b. Water dispersible granules/wettable powder
 - c. Soluble powders/UAN
 - d. Suspension concentrate
 - e. Emulsifiable concentrate
5. Fill the remainder of the tank.
6. Mix only the amount of spray solution that can be applied the day of mixing. *Bolero* 8 EC Herbicide must be applied within 12 hours of mixing.

Application Equipment

Application equipment should be clean and functioning properly. Proper sprayer calibration is required. Nozzles should be spaced to provide even, complete coverage and calibration should frequently be checked for accuracy. Select nozzles that deliver the recommended gallonage. Use the pressure range recommended by the manufacturer for the selected nozzle.

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.

Do not allow spray from ground or aerial equipment to drift onto adjacent land or crops.

The interaction of many equipment and weather related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all factors involved in minimizing drift potential.

When drift may be a problem, do everything possible to reduce spray drift. The following aerial drift reduction information must be followed to avoid off target drift movement from aerial applications to agricultural field crops.

1. Do not spray if wind speed is greater than 8 mph or less than 2 mph. If sensitive crops or plants are downwind, extreme caution must be used under all conditions.
2. The distance between the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
3. 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 must be observed.
4. 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. When making tank mixture applications follow the most restrictive label directions, including application buffer zones, of each product in the mixture.
6. Nozzles should be at a minimum of 10 inches below the trailing edge of the wing on a fixed wing aircraft to prevent spray particles from being released into turbulent air.

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 backwards 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

Variable wind speeds with changing directions pose the potential for drift damage if crops other than rice are adjacent to the field to be sprayed. 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. Do not apply when wind speed is 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

Do not spray at times when spray particles may be entrained into a temperature inversion layer. If inversion conditions are suspected, consult with local weather services before making an application. 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 must 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).

For additional information on sensitive areas, please see the “ENVIRONMENTAL HAZARDS” section of this label.

SPRAYER CLEANOUT

Residual amounts of herbicide in/on mixing or spraying equipment may have an adverse effect on subsequently sprayed crops. Thoroughly drain, clean and rinse all mixing and spraying equipment (including tanks, booms, hoses, strainers, screens and nozzles) immediately after use. Use the following procedure:

1. Remove all physical residue.
2. Thoroughly drain and rinse tanks, booms and hoses with clean water.
3. Fill the tank one-half full of clean water and use a spraying/mixing tank cleaner that does not contain chlorine. Let agitate/re-circulate according to the directions of the cleaner manufacturer. Thoroughly flush the boom and hoses before draining.
4. Rinse all hoses, tanks, nozzles, strainers and booms with clean water to remove the tank cleaner. Follow the directions provided by the tank cleaner manufacturer.
5. Remove the strainers, nozzles and screen and clean separately.
6. Replace the strainer(s), nozzles and screens.
7. Thoroughly rinse the tank with clean water and flush the water through the boom, nozzles and hoses.
8. Dispose of the rinsate on site or at an approved waste disposal facility.

ROTATIONAL RESTRICTIONS

Do not plant subsequent crops in treated fields within 6 months of last application.

USE INSTRUCTIONS

BOLERO 8 EC HERBICIDE APPLICATION RATES AND TIMING TO RICE

Application Rate pt/A	Special Instructions
4 (4.0 lb ai/A)	<p>Water-Seeded Rice - Red Rice Suppression and Sprangletop Control (Preplant, non-incorporated)</p> <ul style="list-style-type: none"> • Apply <i>Bolero</i> 8 EC Herbicide to a well prepared seedbed which preferably has been mechanically ridged and has had drains plowed. • Make application immediately after soil preparation (before any weed germination). If rain should occur after soil preparation, <i>Bolero</i> 8 EC Herbicide should not be applied until the soil is dry enough to support tillage operations. Red Rice or Sprangletop plants which are not killed by seedbed preparation and Red Rice or Sprangletop seed which have germinated before <i>Bolero</i> 8 EC Herbicide application will not be controlled. • Flood the field between 2 and 3 days after the <i>Bolero</i> 8 EC Herbicide application. • Do not drag the field or disturb the treated seedbeds after flooding. • Seeding should not occur before 24 hours after the field has been brought to flood level. Refer to and follow State Extension Service recommendations regarding seeding rate, seeding time after flood and drainage of seeding flood. • Supplemental herbicides may be needed for season long weed control. • Rice in areas which do not completely drain when the seeding flood is removed may be injured or killed. [Refer to “Restrictions and Limitations section”. Begin drainage when the first leaf is about 1/4 to 1/2 inch long. For red rice suppression normal pin-point flood cultural practices (not flush or continuous flood culture) should be followed with the post seeding drainage period not to exceed 3 to 5 days. Preplant nitrogen enhances the program by promoting fast growth. The planting of early season varieties of rice as soon as possible after soil temperatures are favorable; fall preparation of rice land involving deep-plowing and subsequent shallow cultivations; and rotational schemes involving fallow, pasture and/or other non-crops, are essential for long-term integrated management of Red Rice, Sprangletop and other rice weeds. Rice injury and/or stand thinning may be evident, especially when germinating rice is subjected to stress conditions.]
4 (4.0 lb ai/A)	<p>Drill Seeded Rice Only (Delayed Preemergence)¹</p> <ul style="list-style-type: none"> • Apply <i>Bolero</i> 8 EC Herbicide to a well-prepared moist seedbed. Soil should be sealed by flushing or rainfall prior to application of <i>Bolero</i> 8 EC Herbicide.
4 (4.0 lb ai/A)	<p>Dry Seeded Rice (Postemergence)</p> <ul style="list-style-type: none"> • Apply <i>Bolero</i> 8 EC Herbicide to moist soil or flooded fields. • Postemergence application to drill seeded rice can be made after emergence. • If tank mixing, follow tank mix partner’s timing and adjuvant recommendations.

BOLERO 8 EC HERBICIDE APPLICATION RATES AND TIMING TO RICE

Application Rate pt/A	Special Instructions
4 (4.0 lb ai/A)	Water-Seeded Rice (Postemergence) <ul style="list-style-type: none"> Apply <i>Bolero</i> 8 EC Herbicide to moist soil or flooded fields. Postemergence application may be made to rice that is in at least the 2-leaf (second leaf fully expanded) stage of growth.
4 (4.0 lb ai/A)	SEQUENTIAL APPLICATION PROGRAM (Delayed Preemergence Application Followed by Postemergence Application) <ul style="list-style-type: none"> Sequential applications of <i>Bolero</i> 8 EC Herbicide can be made as long as the total annual rate of 4.0 lb/A of thiobencarb is not exceeded.
4 (4.0 lb ai/A)	Tank Mix Application <ul style="list-style-type: none"> <i>Bolero</i> 8 EC Herbicide may be applied in tank mix combination with labeled rates of products listed in Tables 2 and 3. Always read and follow label instructions for all products. Follow most restrictive labeling.
<ul style="list-style-type: none"> Refer to Table 4 for preemergence weeds controlled by <i>Bolero</i> 8 EC Herbicide. 	

¹ Rice seed must germinate (have a primary root at least 1/2 inch long) prior to *Bolero* 8 EC Herbicide application.

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.

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 Herbicide in no less than 10 gal spray mix per acre. Do not apply more than 2-1/2 pt of *Bolero* 8 EC Herbicide per acre when using aerial application equipment east of the Rocky Mountains.

Ground Sprayers: Apply in a minimum of 10 gallons of total spray mix per acre.

The following herbicide products may be tank mixed with *Bolero 8 EC Herbicide* for delayed preemergence use in rice. Always read and follow label instructions for all products tank mixed with *Bolero 8 EC Herbicide*.

Table 2. Preemergence Tank Mix Partners

clomazone (e.g. Command [®])	Newpath [®]	quinclorac (e.g. Facet [®])
glyphosate (e.g. Roundup [®])	Obey [™]	
League [®]	pendimethalin (e.g. Prowl [®])	

The following herbicide products may be tank mixed with *Bolero 8 EC Herbicide* for postemergence use in rice.

Table 3. Postemergence Tank Mix Partners

2,4-D	Grandstand [®]	Obey
Aim [®]	Grasp [®]	propanil ^{1,2}
Broadhead [®]	League	Regiment [®]
Clearpath [®]	Londax [®]	RiceBeaux [®]
Clincher [™]	Newpath	Ricestar [®] HT
clomazone (e.g. Command)		

¹ 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.

² Do not mix liquid nitrogen or surfactants with *Bolero 8 EC Herbicide* alone or when mixed with propanil.

Table 4. Preemergence Weeds Controlled and Suppressed

Common Name	Scientific Name	Application Rate pt/A
Barnyardgrass	<i>Echinochloa crus-galli</i>	4 (4.0 lb ai/A)
Broadleaf Signalgrass	<i>Urochloa platyphylla</i>	
Crabgrass, Large	<i>Digitaria sanguinalis</i>	
Dayflower	<i>Commelina communis</i>	
Ducksalad	<i>Heteranthera limosa</i>	
Eclipta	<i>Eclipta alba</i>	
Fall Panicum	<i>Panicum dichotomiflorum</i>	
False Pimpernel	<i>Lindernia dubia</i>	
Flatsedge		
Redroot	<i>Cyperus erythrorhizos</i>	
Rice	<i>Cyperus iria</i>	
Goosegrass	<i>Eleusine indica</i>	
Gooseweed	<i>Sphenoclea zeylanica</i>	
Horrahgrass	<i>Fimbristylis</i> spp.	
Junglerice	<i>Echinochloa colona</i>	
Red Rice ¹	<i>Oryza sativa</i>	
Redstem (Purple Ammannia)	<i>Ammannia coccinea</i>	
Spikerush		
Amazon	<i>Leptochloa panicoides</i>	
Bearded	<i>Leptochloa fascicularis</i>	
Waterhyssop	<i>Bacopa rotundifolia</i>	

¹ Suppression only – See “APPLICATION RATES AND TIMINGS”

DELAYED PHYTOTOXICITY SYNDROME (DPS)

Bolero 8 EC Herbicide use in rice fields which develop anaerobic (low oxygen content) soil conditions following planting, in the presence of certain fungi that dechlorinate benzene rings (i.e. *Bolero* 8 EC Herbicide, propanil, 2,4-D, etc.), may reduce plant stand and yield. Anaerobic soil conditions are likely to occur when:

1. Green matter and crop residue is plowed down or worked into the soil prior to planting
2. Internal soil drainage is slow (poor percolation).
3. There is a continuous flood.
4. There are areas in the field which retain water during periods of prescribed flood removal.

Management practices which will help to minimize these situations and thereby promote good soil conditions for the production of healthy rice treated with *Bolero* 8 EC Herbicide are:

1. Destruction of previous crop and weed residues by:
 - a. Burning where state regulations allow.
 - b. Fall and winter plowing
 - c. Use of glyphosate or paraquat as a "burndown" to prevent vegetation buildup after initial ground preparation and prior to final seedbed preparation.
2. Application of fertilizer according to soil test results
 - a. Do not apply excess phosphorous.
3. Uniform leveling practices which eliminate low spots in the field and insure that the field is entirely drained for prescribed flood removal periods. This is far more difficult to achieve with the use of contour levees. Fields which have been precision leveled for perimeter ditches or straight levees are more suited to the intense water management practices required for the red rice suppression, pinpoint flood program.
4. Uniform flood depth of 2" to 4".
5. Not exceeding labeled rates of *Bolero* 8 EC Herbicide, accurate calibration of application equipment and eliminating application overlap.

Water-seeded rice fields treated with *Bolero* 8 EC Herbicide preplant or post flood should be inspected regularly through the stand establishment and seedling growth stages. If any of the following phytotoxic symptoms (associated with low oxygen soil conditions) occur:

1. dark green foliage
2. reduced plant height
3. plant deformation

Immediately drain the flood and allow the soil to oxygenate (no standing water for 3 to 5 days) then re-flood. Low spots which do not drain completely may continue to display phytotoxic symptoms.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage and 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 **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 HANDLING

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.

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