

BROMOXYNIL	GROUP	6	HERBICIDE
FLUROXYPYR	GROUP	4	HERBICIDE
FLUCARBAZONE-SODIUM	GROUP	2	HERBICIDE

# BATALIUM<sup>®</sup> X

## HERBICIDE

### FOR POSTEMERGENCE CONTROL OF ANNUAL BROADLEAF AND GRASS WEEDS IN SPRING AND WINTER WHEAT

ACTIVE INGREDIENTS:	% BY WT.
Octanoic acid ester of bromoxynil: 3,5-Dibromo-4-hydroxybenzotrile*	29.31%
Fluroxypyr 1-methylheptyl ester: ((4-Amino-3,5-dichloro-6-fluoro-2-pyridinyl)oxy)acetic acid, 1-methylheptyl ester**	10.86%
Flucarbazone-sodium: 4,5-Dihydro-3-methoxy-4-methyl-5-oxo-N-[[2-(trifluoromethoxy)phenyl]sulfonyl]-1H-1,2,4-triazole-1-carboxamide, sodium salt	2.16%
OTHER INGREDIENTS:	57.67%
TOTAL:	100.00%

\*This product contains 20.13% 3,5-Dibromo-4-hydroxybenzotrile (bromoxynil) or 1.93 pounds acid equivalent per gallon (231.5 g ae/L).  
 \*\*This product contains 7.54% ((4-Amino-3,5-dichloro-6-fluoro-2-pyridinyl)oxy) acetic acid (fluroxypyr) or 0.72 pounds acid equivalent per gallon (86.7 g ae/L).  
 This formulation contains 0.21 pounds of flucarbazone-sodium active ingredient per gallon (24.8 g ai/L).

EPA Reg. No. 70506-639

Read entire label before use

### KEEP OUT OF REACH OF CHILDREN

## WARNING / AVISO

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

See panel of container for First Aid Instructions and Booklet for complete Precautionary Statements and Directions for Use.

FIRST AID	
<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>Hold eye open and rinse slowly and gently with water for 15 - 20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to by a poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15 - 20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
<b>NOTE TO PHYSICIAN:</b> No specific antidote is available. Treat the patient symptomatically.	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. <b>FOR 24-HOUR MEDICAL EMERGENCY ASSISTANCE CALL ROCKY MOUNTAIN POISON AND DRUG SAFETY: 1-866-673-6671.</b> <b>FOR 24-HOUR CHEMICAL EMERGENCY (Spill, leak, fire, exposure or accident) CALL CHEMTREC: 1-800-424-9300.</b>	

Net Contents: \_\_\_\_\_ Gallons



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 King of Prussia, PA 19406 U.S.A. • 1-800-438-6071



## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**WARNING:** Causes substantial but temporary eye injury. Harmful if swallowed. Do not get in eyes or on clothing. Avoid contact with skin. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt, long pants,
- Chemical-resistant gloves made of barrier laminate or butyl rubber  $\geq$  14 mils
- Shoes plus socks.
- Protective eyewear such as goggles, face shield, or safety glasses

Discard clothing and other absorbent materials 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 exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

### ENGINEERING CONTROL STATEMENT

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR §170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS. Pilots must use an enclosed cockpit that meets the requirements listed in the WPS for agricultural pesticides 40 CFR 170.240 (d)(6).

### USER SAFETY RECOMMENDATIONS

User should:

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and change into clean clothing.
- If pesticide gets on skin, wash immediately with soap and water.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing them. As soon as possible, wash thoroughly and change into clean clothing.

### ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from areas treated. Do not contaminate water when disposing of equipment washwater or rinsate.

Do not allow sprays to drift onto adjacent desirable plants.

**NON-TARGET ORGANISM ADVISORY STATEMENT:** This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

**GROUNDWATER ADVISORY STATEMENT:** This chemical has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

**SURFACE WATER ADVISORY STATEMENT:** This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of flucarbazone-sodium from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

### Reporting Ecological Incidents

To report ecological incidents, including mortality, injury, or harm to plants and animals, call 1-800-438-6071.

### PHYSICAL AND CHEMICAL HAZARDS

Do not mix or come into contact with oxidizing agents. Hazardous chemical reaction may occur.

## DIRECTIONS FOR USE

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

**DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### Endangered Species Protection Requirements

It is a Federal offense to use any pesticide in a manner that results in an unauthorized "take" (e.g., kill or otherwise harm) of an endangered species and certain threatened species, under the Endangered Species Act section 9. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the product. To obtain Bulletins, consult <http://www.epa.gov/espp/>, call 1-844-447-3813, or email [ESPP@epa.gov](mailto:ESPP@epa.gov). You must use the Bulletin valid for the month in which you will apply the product.

### Important

Read the entire **DIRECTIONS FOR USE** and **WARRANTY AND DISCLAIMER STATEMENT** before using this product.

### Important Restrictions

This product is persistent and may be present in plant materials for over 30 days after application. Do not use treated plant material or manure from animals that have grazed or consumed forage from treated areas for compost, mulch, or mushroom spawn until 30 days after application.

Animals that have been fed fluroxypyr treated forage must be fed forage free of fluroxypyr for at least 3 days before they are moved off the treated property.

## AGRICULTURAL USE REQUIREMENTS

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

**Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours following application.**

Exception: PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- coveralls,
- waterproof gloves,
- shoes plus socks.

## PRODUCT INFORMATION

BATALIUM® X Herbicide is for use in spring, durum and winter wheat. BATALIUM X Herbicide controls wild oat, green foxtail, and other grass species as well as numerous broadleaf weeds, including kochia, common lambsquarters, wild buckwheat, wild mustard and shepherd's purse. BATALIUM X Herbicide also suppresses additional grass and broadleaf weeds, including downy brome, and wild buckwheat.

BATALIUM X Herbicide is absorbed by foliage and roots of susceptible weeds, which cease growth soon after application. Maximum weed control is achieved one to two weeks after application, though susceptible weeds will stop growing and will no longer be competitive soon after application. For broader spectrum activity, BATALIUM X Herbicide may be tank-mixed with other broadleaf and grass herbicides listed on this label. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank-mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank-mixture. See **TANK-MIXES** section for advised products.

## WEED RESISTANCE MANAGEMENT

BATALIUM X Herbicide contains the active ingredients flucarbazone-sodium, fluroxypyr, and bromoxynil, which are categorized as Group 2, 4 and 6 herbicides based on the site of action classification system of the Weed Science Society of America. Flucarbazone-sodium is an amino acid synthesis inhibitor (ALS) mode of action (Group 2) herbicide. Fluroxypyr is a growth regulator (Group 4) herbicide. Bromoxynil is a photosynthesis inhibitor mode of action (Group 6) herbicide.

Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is a best practice. A diversified weed management program may include the use of multiple herbicides with different sites of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices. Research has demonstrated that using the labeled rate and directions for use is important to delay the selection for resistance.

The continued effectiveness of this product depends on the successful implementation of a weed resistance management program.

To aid in the prevention of developing weeds resistant to this product, users should:

- Scout fields before application to ensure herbicides and rates will be appropriate for the weed species and weed sizes present.
- Start with a clean field, using either a burndown herbicide application or tillage.
- Apply the full label rate of BATALIUM X Herbicide at the specified time (correct weed size) to minimize weed escapes.
- Scout fields after application to detect weed escapes or shifts in control of weed species.
- Control weed escapes before they reproduce by seed or proliferate through vegetative propagation.
- Contact your UPL NA Inc. representative, crop advisor, or extension agent to find out if suspected resistant weeds to these MOAs have been found in your region. **DO NOT** assume that each listed weed is being controlled by multiple MOAs. Co-formulated active ingredients are intended to broaden the spectrum of weeds that are controlled. Some weeds may be controlled by only one of the active ingredients in this product. If resistant biotypes of target weeds have been reported, use the full application rate of this product specified for your local conditions. Tank-mix products so that there are multiple effective sites of actions for each target weed.
- Report any incidence of non-performance of this product against a particular weed to your UPL NA representative, local retailer, or county extension agent.
- If resistance is suspected, treat weed escapes with an herbicide having a site of action other than Group 2, 4, or 6 and/or use nonchemical methods to remove escapes, as practical, with the goal of preventing further seed production.
- Suspected herbicide-resistant weeds may be identified by these indicators:
  - Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
  - A spreading patch of non-controlled plants of a particular weed species; and
  - Surviving plants mixed with controlled individuals of the same species
- Additionally, users should follow as many of the following herbicide resistance management practices as is practical:
  - Use a broad-spectrum soil-applied herbicide with other sites of action as a foundation in a weed control program.
  - Utilize sequential applications of herbicides with alternative sites of action.
  - Rotate the use of this product with non-Group 2, 4, or 6 herbicides.
  - Avoid making more than two applications of this or any other herbicide with the same mode of action within a single growing season unless mixed with an herbicide with a different site of action with an overlapping spectrum for the difficult to control weeds.
  - Incorporate non-chemical weed control practices, including mechanical cultivation, crop rotation, cover crops and weed-free crop seeds, as part of an integrated weed control program.
  - Use good agronomic principles that enhance crop development and crop competitiveness.

- Thoroughly clean plant residues from equipment before leaving fields suspected to contain resistant weeds.
- Manage weeds in and around fields, during and after harvest to reduce weed seed production.
- For further information or to report suspected resistance, contact UPL NA INC. at 1-800-438-6071.

**Read the entire DIRECTIONS FOR USE before using BATALIUM X Herbicide.**

This product is not to be used on flood irrigated fields or irrigated fields with a soil pH greater than 8.0.

**USE RESTRICTIONS**

- For use only in wheat (spring, durum, winter).
- Make only one application per year.
- Grazing is prohibited in treated wheat fields within 15 days of application.
- **DO NOT** mix, load or clean spray equipment within 33 feet of well-heads or aquatic systems, including marshes, ponds, ditches, streams, lakes, etc.
- **DO NOT** apply within 50 feet of well-heads or aquatic systems, including marshes, ponds, ditches, streams, lakes, etc.
- **DO NOT** apply post emergence when rain is expected within the next hour after application.
- **DO NOT** allow this chemical to drift onto other crops.
- **DO NOT** harvest wheat grain or straw until 60 days after the last application.
- **DO NOT** apply this product through any type of irrigation system.
- **DO NOT** use if cereal crop is under-seeded with a legume.
- For Idaho, use only in the counties of Benewah, Boundary, Bonner, Clearwater, Idaho, Kootenai, Latah, Lewis, Nez Perce, and Shoshone. Use in all other counties of Idaho is prohibited.

**USE PRECAUTIONS**

With BATALIUM X Herbicide occasional transitory leaf burn may occur. Recovery of the crop is rapid with no lasting effect. Frequency and amount of leaf burn may be greater when crops are stressed by abrasive winds, cool to cold evening temperatures or mechanical injury, including that caused by hail, sleet or insect feeding. To reduce the potential for temporary leaf burn, applications must be made to dry foliage in the specified spray volumes per acre when weather conditions are not extreme.

**POSTEMERGENCE USE DIRECTIONS FOR SPRING, DURUM AND WINTER WHEAT**

**APPLICATION PROCEDURES**

**MIXING INSTRUCTIONS**

Ensure the spray-tank is clean. In-line strainers and nozzle screens must be clean and 50 to 80 mesh or coarser. Batalium X Herbicide added to water must be at a temperature above 45°F.

1. Fill the spray-tank 1/4 to 1/2 full with clean water and begin agitation or bypass.
2. Add the appropriate rate of BATALIUM X Herbicide.
3. Add any additional pesticide.
4. Add the adjuvant.
5. Add micronutrients (if needed).
6. Fill the spray-tank to the required level.

7. Maintain sufficient agitation during both mixing and application of BATALIUM X Herbicide.

8. For best results, apply mixed spray within 4 hours after mixing.

**GROUND APPLICATION**

Apply in a spray volume of 8 to 15 gal/A (or 80 to 150 L/ha) at the specified pressure for the nozzles used to ensure proper weed coverage.

**AERIAL APPLICATION**

Apply in water using a minimum spray volume of 3 gal/A (or 30 L/ha). For best results, use a minimum of 5 gal/A (or 50 L/ha) under dry conditions or heavy weed infestations. Aerial applications with BATALIUM X Herbicide must be made with low drift nozzles at a maximum height of 10 feet above the crop and at a maximum pressure of 40 psi.

**MANDATORY SPRAY DRIFT MANAGEMENT**

**Aerial Applications**

- Do not release spray at a height greater than 10 ft above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For all applications, applicators are required to use a medium to ultra-coarse spray droplet size (ASABE S572).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use 1/2 swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

**Ground Applications**

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy.
- For all applications, applicators are required to use a medium to ultra-coarse spray droplet size (ASABE S572).
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

**SPRAY DRIFT ADVISORIES**

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

**• IMPORTANCE OF DROPLET SIZE**

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

**Controlling Droplet Size - Ground Boom**

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.

- Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

#### Controlling Droplet Size - Aircraft

- Adjust Nozzles - Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

- **BOOM HEIGHT - Ground Boom**

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the crop and have minimal bounce.

- **RELEASE HEIGHT - Aircraft**

Higher release heights increase the potential for spray drift. When applying aurally to crops, do not release spray at a height greater than 10 ft above the crop canopy, unless a greater application height is necessary for pilot safety.

- **SHIELDED SPRAYERS**

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

- **TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

- **TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or 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. Avoid applications during temperature inversions.

- **WIND**

Drift potential generally increases with wind speed. **AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.**

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

### ENDANGERED SPECIES PROTECTION

To avoid adverse effects on endangered dicot plant species, the following measures will be required where endangered plant species occur in the counties listed in the following table:

State	County
Idaho	Idaho, Lewis, Nez Perce
Minnesota	Brown, Cottonwood, Goodhue, Jackson, Renville
Montana	Flathead, Lake
Oregon	Benton, Clackamas, Lane, Linn, Marion, Polk, Union, Wallowa, Washington, Yamhill
Washington	Asotin, Chelan, Cowlitz, Lewis, Lincoln, Spokane, Whitman
Wyoming	Laramie

For ground applications, the applicator must:

- Apply when there is sustained wind away from native plant communities,  
OR
- Use low-pressure nozzles according to manufacturer's specifications that produce only coarse or very coarse droplets,  
OR
- Leave a 50-foot untreated buffer between the treatment and native plant communities.

For aerial applications, the applicator must:

- Apply only when there is sustained wind away from native plant communities,  
OR
- Leave a 350-foot untreated buffer between the treatment and native plant communities.

### USE RATES AND TIMING OF APPLICATION

Best weed control is observed when environmental conditions and soil fertility support vigorous growth of crop and weeds. Research has demonstrated that optimum wheat yield is obtained by early removal of grassy weeds.

Apply BATALIUM X Herbicide at a rate of 17.2\* fl oz/A to spring, durum and winter wheat from two leaf up to 60 days prior to harvest. Winter wheat applications can be made in the fall or spring.

**\*17.2 fl oz product/A is equivalent to 0.26 lb ae/A bromoxynil, 0.0976 lb ae/A fluroxypyr, 0.028 lb ai/A flucarbazone-sodium**

### RESTRICTIONS

- **DO NOT** make more than one post emergence application of BATALIUM X Herbicide per year.
- **DO NOT** apply more than the single maximum rate of 17.2 fl oz/A of BATALIUM X Herbicide (equivalent to 0.26 lb ae/A bromoxynil, 0.0976 lb ae/A fluroxypyr, 0.028 lb ai/A flucarbazone-sodium) per year.
- **DO NOT** cumulatively apply more than 0.50 lb ae/A bromoxynil per year.
- **DO NOT** cumulatively apply more than 0.25 lb ae/A fluroxypyr per year.

Grass Weed Control (C) or Suppression (S)		
Grass	Stage	Efficacy
Green foxtail	1 to 4 leaves	C
Volunteer oat	1 to 4 leaves	C
Wild oat	1 to 4 leaves prior to tillering	C <sup>1</sup>
Yellow foxtail	1 to 4 leaves actively growing	S
Japanese brome	1 to 4 leaves actively growing	S
True cheat	1 to 2 leaves	S <sup>1</sup>
Barnyardgrass	2 to 4 leaves prior to tillering	S <sup>1</sup>
Downy brome	1 to 4 leaves actively growing	S <sup>1</sup>
Foxtail barley	1 to 4 leaves prior to tillering	S <sup>1</sup>
Persian darnel	1 to 4 leaves actively growing	S <sup>1</sup>

<sup>1</sup> A tank-mix with tribenuron-methyl + thifensulfuron-methyl herbicides or other herbicides containing tribenuron is required to achieve the level of control listed in the table above.

<b>Broadleaf Weeds Controlled; Up to 4 inches in height; 2 inch rosette<sup>1</sup></b>	
Annual sowthistle	Morningglory (ivyleaf, pitted, tall)
Bedstraw (cleavers) (1-4 whorls)	Mustard (blue, wild)
Bristly starbur	Nightshade, (black, cutleaf, Eastern black, hairy, silverleaf)
Buffalobur	Pepperweed
Burcucumber	Pigweed (redroot, spiny)
Coast fiddleneck	Prickly lettuce
Cocklebur, common	Puncturevine
Corn gromwell	Purslane, common
Cow cockle	Ragweed (common, giant)
Field pennycress	Russian thistle
Grousel, common	Shepherd's purse
Hemp sesbania	Smartweed (green, ladythumb, Pennsylvania)
Jimsonweed	Sunflower <sup>3</sup>
Knawel	Tartary buckwheat
Knotweed	Tarweed, common
Kochia <sup>2</sup>	Velvetleaf
Lambsquarters, common	Volunteer canola
Lanceleaf sage	Volunteer flax
London rocket	Wild buckwheat
Mallow (common, Venice)	Wild radish
	Yellow starthistle
<sup>1</sup> For the states of Idaho, Oregon, Washington, Colorado, Wyoming, and Montana, add bromoxynil to provide 0.125 to 0.25 lb ai/A. Target weed size up to 2 inches in height; 1 inch rosette. <sup>2</sup> Includes ALS herbicide resistant. Best control is achieved when weeds are at least 1 inch tall. <sup>3</sup> For best control of sunflower, delay application until emerging seedlings are 4 inches in height.	

Wheat exposed to excessive salt levels (saline) or water logged saturated soils or temperature extremes including hot or freezing weather (frost 3 days before or 3 days after application), drought, low fertility or plant disease immediately prior to or after application could result in unacceptable injury symptoms. Weed control may also be reduced by these same conditions.

## ADJUVANT USE RATES

BATALIUM X Herbicide applied alone requires the use of an adjuvant according to the following directions. When BATALIUM X Herbicide is applied in tank-mixture with EC products at a rate of 8 fl oz/A or greater, only a nitrogen source adjuvant is required. When an adjuvant is to be used with this product, UPL NA advises the use of a Chemical Producers and Distributors Association (CPDA) certified adjuvant.

<b>Specified Adjuvant Use Rates For Durum, Spring and Winter Wheat</b>	
BATALIUM X Herbicide alone or in tank-mixture with dry formulated herbicides or Emulsifiable Concentrate (EC)-based herbicides used at less than 8 fl oz/A	<ul style="list-style-type: none"> <li>• A high quality basic blend at 2 to 4 qt per 100 gal (0.5-1% v/v).</li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>• A non-ionic surfactant at 1 to 2 qt per 100 gal (0.25-0.5% v/v) + a liquid nitrogen fertilizer (28%UAN) at 1 to 2 qt/A or ammonium sulfate fertilizer (AMS) at 1 to 2 lb/A (8.5 to 17.5 lb/100 gal of spray solution).</li> </ul>
BATALIUM X Herbicide with Emulsifiable Concentrate (EC)-based Herbicides used at greater than 8 fl oz/A	<ul style="list-style-type: none"> <li>• A liquid nitrogen fertilizer (28%UAN) at 1 to 2 qt/A or ammonium sulfate fertilizer (AMS) at 1 to 2 lb/A (8.5 to 17.5 lb/100 gal of spray solution).</li> <li>• A non-ionic surfactant at 1 to 2 qt per 100 gal (0.25-0.5% v/v) can be added if not restricted by the tank-mix partner.</li> </ul>

## TANK-MIXES

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank-mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank-mixture.

For disease control or suppression fungicides, including fluoxastrobin formulations, can be tank-mixed with BATALIUM X Herbicide.

**DO NOT use BATALIUM X Herbicide with any organophosphate or carbamate containing insecticides.**

For broader spectrum control of broadleaf weeds, BATALIUM X Herbicide may be mixed with the broadleaf herbicides listed in the following table. Depending on the tank-mix partner, an adjuvant may be included in the spray solution. See **ADJUVANT USE RATES** section.

With all tank-mix partners, read and follow the use directions, rates, precautions, timing, recropping restrictions, grazing interval restrictions and specifications on broadleaf herbicide and surfactant labels. The tank-mix must be used in accordance with the more restrictive label limitations and precautions for all pesticides used.

BATALIUM X Herbicide Tank-Mix <sup>1</sup> Partners	
2,4-D (amine or ester)	MCPA (amine or ester)
bromoxynil <sup>2</sup>	metsulfuron-methyl
carfentrazone-ethyl	propoxycarbazone-sodium
chlorsulfuron + metsulfuron-methyl	prosulfuron
clopyralid	pyrasulfotole + bromoxynil
clopyralid + 2,4-D	sulfosulfuron
clopyralid + fluroxypyr <sup>3</sup>	thifensulfuron-methyl
clopyralid + MCPA	thifensulfuron-methyl + tribenuron-methyl + metsulfuron-methyl
dicamba	triasulfuron
fenoxaprop-p-ethyl	tribenuron-methyl
florasulam	tribenuron-methyl + thifensulfuron-methyl
fluroxypyr	
<sup>1</sup> For tank-mix partner rate directions follow the label of the tank-mix partner. <sup>2</sup> <b>DO NOT</b> tank-mix more than an equivalent of 0.25 lb ae/A bromoxynil. <b>DO NOT</b> cumulatively apply more than 0.50 lb ae/A bromoxynil per year. <sup>3</sup> If BATALIUM X Herbicide is applied in a tank-mix combination with a dicamba-containing broadleaf herbicide; grass control will be reduced, except for green foxtail.	

## ADDITIONAL INFORMATION

### SPRAYER CLEAN-UP

Clean sprayer using the following procedures:

1. Drain the tank and thoroughly rinse spray-tank, boom and hoses with clean water especially all visible deposits.
2. Fill the tank with water and add household ammonia to make a 1% v/v solution (1 gal/100 gal). Flush the hoses, boom and nozzles with the cleaning solution. Circulate for at least 15 minutes. Flush hoses, boom and nozzles once more and then drain the tank.
3. Clean nozzles and screens in a separate container using the 1% v/v solution of ammonia and water.
4. Repeat Step 2.
5. Rinse tank and flush boom and hoses with clean water.

**DO NOT** clean sprayer near desirable vegetation, wells or other water sources:

1. Dispose of all rinsate in accordance with pertinent regulations.
2. Check tank-mix partner label for any additional clean-up procedures.

## CROP ROTATION RESTRICTIONS

for the states of North Dakota, Minnesota, Montana and South Dakota

Crops	Interval for soils with a pH < 8.0	Intervals for soils with a pH at or > 8.0
Spring and Winter Wheat	0 days	0 days
Durum Wheat	4 months	4 months
Sunflower	4 months	4 months
STS Soybeans	6 months	6 months
Barley	9 months	9 months
Canola	9 months	9 months
Dry Edible Beans	9 months	9 months
Flax	9 months	9 months
Potatoes <sup>1</sup>	9 months	9 months
Safflower	9 months	9 months
Soybeans	9 months	9 months
Sugarbeets <sup>1</sup>	9 months	9 months
Alfalfa	11 months	18 months
Corn	11 months	11 months
Field peas	11 months	18 months
Garbanzo bean (Chickpea)	11 months	18 months
Clearfield Lentils	18 months	18 months
Lentils	18 months	24 months
Oat	18 months	24 months
Sorghum or forage millet	18 months	18 months
Mustard	24 months	24 months
<sup>1</sup> Due to lower organic matter, seasonal moisture and irrigation practices, potatoes and sugarbeet grown in western North Dakota or South Dakota (west of highway 281) or Montana must not be planted until 24 months after application.		

As BATALIUM X Herbicide is degraded by soil microbes, environmental conditions that decrease microbial activity must be considered when making rotational cropping decisions. These environmental conditions include less than the 10 year average precipitation, cold temperatures within and following the cropping season, as well as soils with both low Organic Matter (OM) and high pH. If these conditions exist, or for crops not listed on the **CROP ROTATION RESTRICTIONS** for the states of ND, MN, MT and SD a soil bioassay may be necessary to ensure rotational crop safety. Previous herbicide history must be known prior to planting the crops listed in this section. Long-residual ALS inhibitors can remain for several years after application and increase the chance of rotational crop injury.

## CROP ROTATION RESTRICTIONS

for the states of Idaho, Oregon, and Washington

Crops	Interval for soils with a pH at or < 5.5	Intervals for soils with pH 5.6 - 7.5 <sup>1</sup>
Spring and Winter Wheat	0 days	0 days
Durum Wheat	4 months	4 months
Sunflower	4 months	4 months
STS Soybeans	6 months	6 months
Barley	9 months	11 months
Canola	9 months	9 months
Dry Edible Beans	9 months	9 months
Flax	9 months	9 months
Safflower	9 months	9 months
Soybeans	9 months	9 months
Timothy	9 months	18 months
Alfalfa	11 months	18 months
Corn	11 months	18 months
Field peas	10 months	18 months
Garbanzo bean (Chickpea)	10 months	18 months
Clearfield Lentils	10 months	18 months
Lentils	18 months	24 months
Oat	18 months	24 months
Sorghum or forage millet	18 months	24 months
Mustard	24 months	24 months
<sup>1</sup> For soils with a pH greater than 7.5 rotate to wheat the following season then conduct a bioassay prior to other crops.		

As BATALIUM X Herbicide is degraded by soil microbes, environmental conditions that decrease microbial activity must be considered when making rotational cropping decisions. These environmental conditions include less than the 10 year average precipitation cold temperatures within and following the cropping season, as well as soils with both low Organic Matter (OM) and high pH. If these conditions exist, or for crops not listed on **CROP ROTATION RESTRICTIONS** for the states of ID, OR, and WA a soil bioassay may be necessary to ensure rotational crop safety. Previous herbicide history must be known prior to planting the crops listed in this section. Long-residual ALS inhibitors can remain for several years after application and increase the chance of rotational crop injury.

## CROP ROTATION RESTRICTIONS

for all other states where BATALIUM X Herbicide is registered for use:

Crops	Interval for soils with a pH at or < 6.5	Intervals for soils with a pH 6.6 - 7.5	Intervals for soils with a pH 7.6 - 8.0 <sup>1</sup>
Spring and Winter Wheat	0 days	0 days	0 days
Durum Wheat	4 months	4 months	4 months
Sunflower	4 months	4 months	9 months
STS Soybeans	4 months	6 months	6 months
Barley	9 months	11 months	18 months
Canola	9 months	9 months	11 months
Dry Edible Beans	9 months	11 months	18 months
Flax	9 months	9 months	12 months
Soybeans	6 months	9 months	12 months
Cotton	6 months	9 months	12 months
Alfalfa	9 months	18 months	24 months
Corn	9 months	15 months	18 months
Garbanzo bean (Chickpea)	9 months	15 months	18 months
Oat	9 months	18 months	18 months
Grain Sorghum	9 months	15 months	18 months
Millet or forage sorghum	9 months	15 months	24 months
<sup>1</sup> For soils with a pH greater than 8.0 rotate to wheat the following season then conduct a bioassay prior to other crops.			

As BATALIUM X Herbicide is degraded by soil microbes, environmental conditions that decrease microbial activity must be considered when making rotational cropping decisions. These environmental conditions include less than the 10 year average precipitation, cold temperatures within and following the cropping season, as well as soils with both low Organic Matter (OM) and high pH. If these conditions exist, or for crops not listed on **CROP ROTATION RESTRICTIONS** for all other states a soil bioassay may be necessary to ensure rotational crop safety. Previous herbicide history must be known prior to planting the crops listed in this section. Long-residual ALS inhibitors can remain for several years after application and increase the chance of rotational crop injury.



## STORAGE AND DISPOSAL

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

### PESTICIDE STORAGE

Do not freeze. Store in a cool (above 45°F), dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container, keep tightly closed, and out of reach of children, preferably in a locked storage area.

### PESTICIDE DISPOSAL

Pesticide wastes are toxic. Improper disposal of excess pesticide, pesticide spray or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

### CONTAINER HANDLING

#### **Rigid, Non-refillable containers small enough to shake (i.e., with capacities equal to or less than 5 gallons).**

**Non-refillable container.** Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix-tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix-tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix-tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix-tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

#### **Rigid Non-refillable containers that are too large to shake (i.e., with capacities greater than 5 gallons or 50 lbs).**

**Non-refillable container.** Do not reuse or refill this container. After emptying product from container, either return container to UPL NA per instructions from UPL NA (1-800-438-6071), or rinse and either recycle or dispose of the container as follows:

#### **Bottom Discharge IBC (e.g. Schuetz Caged IBC or Snyder Square Stackable).**

Pressure rinsing the container before final disposal is the responsibility of the person disposing of the container. To pressure rinse the container before final disposal, empty the remaining contents from the IBC into application equipment or mix-tank. Raise the bottom of the IBC by 1.5 inches on the side which is opposite of the bottom discharge valve to promote more complete product removal. Completely remove the top lid of the IBC. Use water pressurized to at least 40 PSI to rinse all interior portions. Continuously pump or drain rinsate into application equipment or rinsate collection system while pressure rinsing. Continue pressure rinsing for 2 minutes or until rinsate becomes clear. Replace the lid and close bottom valve.

#### **Top Discharge IBC, Drums, Kegs (e.g. Snyder 120 Next Gen, Bonar B120, Drums, and Kegs).**

Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. To triple rinse the container before final disposal, empty the remaining contents from this container into application equipment or rinsate collection system. Fill the container at least 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Rinse all interior surfaces. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this procedure two more times.

Once container is rinsed, offer for recycling if available, or puncture and dispose of in a sanitary landfill.

**IMPORTANT INFORMATION  
READ BEFORE USING PRODUCT**

**CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product reflect the opinion of experts based on field use and tests, and must be followed carefully. It is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of UPL NA Inc. or Seller. Handling, storage, and use of the product by Buyer or User are beyond the control of UPL NA Inc. and Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold UPL NA Inc. and Seller harmless for any claims relating to such factors.

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