



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

January 31, 2023

Marcia K. Trostle  
Sr. Advisor, Chemistry and Adjuvant Registrations  
Loveland Products Inc.  
P.O. Box 1286  
Greeley, CO 80632-1286

Subject: Registration Review Label Amendments Incorporating Mitigation Measures from the Interim Decisions for S-Metolachlor and Fomesafen and the National Marine Fisheries Services' (NMFS) Biological Opinion on the Effects of S-Metolachlor on Pacific Salmonids  
*Product Name:* LPI.A013  
*EPA Registration Number:* 34704-1159  
*Application Dates:* 5/2/2021, 9/2/2021, and 1/31/2023  
*Decision Numbers:* 575314, 578345, and 589743

Dear Marcia Trostle:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the S-Metolachlor and Fomesafen Interim Decisions. The Agency has concluded that your submission is acceptable.

This letter also addresses the label mitigation resulting from the NMFS' Biological Opinion on the effects of S-Metolachlor on Pacific salmonids. The Agency has concluded that your submission is also acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

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.

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 12 months from the date of this letter. After 12 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.

If you have any questions about this letter, please contact Quinn Gavin at [gavin.quinn@epa.gov](mailto:gavin.quinn@epa.gov).

Sincerely,

A handwritten signature in blue ink, appearing to read "Linda Arrington", with a stylized flourish at the end.

Linda Arrington, Branch Chief  
Risk Management and Implementation Branch 4  
Pesticide Re-Evaluation Division  
Office of Pesticide Programs

Enclosure

[Note to reviewer: [Text] in brackets denotes optional or explanatory language]  
 [Note to reviewer: {Text} in braces denotes where in the final label text will appear]  
 {BOOKLET FRONT PANEL LANGUAGE}

S-METOLACHLOR	GROUP	15	HERBICIDE
FOMESAFEN	GROUP	14	HERBICIDE

Sale, use and distribution of this product in Nassau and Suffolk Counties in the State of New York is prohibited.

**LPI.A013 [™]**  
 [Alternate Brand Name: Sardis PFX]

[For control of certain grasses and broadleaf weeds in soybeans and cotton]

ACTIVE INGREDIENTS:	(% by weight)
S-metolachlor* .....	46.4%
Sodium Salt of Fomesafen** .....	10.2%
<b>OTHER INGREDIENTS:</b> .....	<b>43.4%</b>
<b>TOTAL</b> .....	<b>100.0%</b>

LPI.A013 is formulated as an emulsifiable concentrate (EC). LPI.A013 contains 4.34 lb of S-Metolachlor and 0.95 lb of the sodium salt of fomesafen per gallon.

\*CAS No. 87392-12-9  
 \*\*CAS No. 108731-70-0

Contains petroleum distillates.

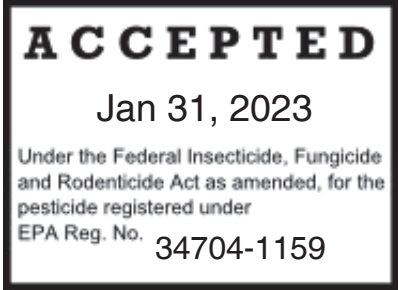
**KEEP OUT OF REACH OF CHILDREN  
 WARNING/AVISO**

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

See inside label booklet for First Aid, Precautionary Statements and Directions for Use.

EPA Reg. No.: 34704-1159  
 EPA Est. No.:  
 Net Weight:  
 [Label ID Print Code]

**MANUFACTURED FOR:**  
 LOVELAND PRODUCTS, INC.  
 P.O. BOX 1286  
 GREELEY, COLORADO 80632-1286



## {LANGUAGE INSIDE BOOKLET}

<b>FIRST AID</b>	
<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 eye.</li> <li>• Call a poison control center or doctor for treatment advice.</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>If swallowed:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Do not give <b>any</b> liquid to the person.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If inhaled:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>HOT LINE NUMBER</b>	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<b>FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-866-944-8565.</b>	
<b>Note to Physician:</b> Contains petroleum distillate. Vomiting may cause aspiration pneumonia.	

**For Chemical Emergency:**  
**Spill, Leak, Fire, Exposure, or Accident,**  
**Call CHEMTREC Day or Night**  
**Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)**

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

#### WARNING/AVISO

Causes substantial but temporary eye injury. Harmful if swallowed. Do not get in eyes or on clothing. Avoid contact with skin. Wash 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.

#### **Personal Protective Equipment (PPE)**

Mixers, loaders, applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ mils, or Viton ≥ 14 mils
- Shoes plus socks
- Protective eyewear

#### **USER SAFETY REQUIREMENTS**

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 CONTROLS**

Mixers and loaders supporting aerial applications 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 170.607(d-e). When using the closed system, the mixers' and loaders' PPE requirements may be reduced or modified as specified in the WPS.

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 170.607(d-e), the handler PPE requirements may be reduced or modified as specified in the WPS.

## **USER SAFETY RECOMMENDATIONS**

### **Users should:**

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE 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**

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 contaminate water when disposing of equipment wash water or rinsate. Do not apply when weather conditions favor drift from target area.

### **Reporting Ecological Incidents:**

To report ecological incidents, including mortality, injury, or harm to plants and animals, call **1-866-944-8565**.

Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated area.

### **GROUNDWATER ADVISORY**

S-metolachlor are known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

### **SURFACE WATER ADVISORY**

This product may impact surface water quality due to spray drift and runoff of rainwater. 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 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 Fomesafen and S-Metolachlor from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is forecasted to occur within 48 hours. For more information, see the United States Department of Agriculture National Resources Conservation Service's manual, "*Conservation Buffers to Reduce Pesticide Losses.*"

**NON-TARGET ORGANISM ADVISORY:**

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.

**MIXING/LOADING INSTRUCTIONS**

This product must be used in a manner which will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

All mixing and/or irrigation equipment used for **LPI.A013** must be equipped with check valves or other devices to prevent siphoning.

This product may not be mixed or loaded within 50 ft of perennial or intermittent streams and rivers, natural or impounded lakes and reservoirs. This product may not be mixed/loaded or used within 50 ft of all wells, including abandoned wells, drainage wells, and sink holes. Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 ft of any well are prohibited, unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above-specified minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site.

**PHYSICAL OR CHEMICAL HAZARDS**

Do not mix or allow to come in 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.

**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. You must obtain a Bulletin no earlier than six months before using this product. To obtain Bulletins, consult <http://www.epa.gov/espp/> ([Protecting Endangered Species from Pesticides | US EPA](#)), call 1-844-447-3813, or email ESPP@epa.gov. You must use the Bulletin valid for the month in which you will apply the product.

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 24 hours. Exception: If the product is soil-injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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, wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of barrier laminate, butyl rubber  $\geq$  14 mils, nitrile rubber  $14 \geq$  mils, or Viton  $\geq$  14 mils
- Shoes plus socks
- Protective eyewear

**FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.**

**Sale, use and distribution of this product in Nassau and Suffolk Counties in the State of New York is prohibited.**

### **PRODUCT INFORMATION**

**LPI.A013** is a selective herbicide for the control or partial control of certain grass, broadleaf and sedge weeds in soybeans and cotton. **LPI.A013** may be applied as a preplant surface, preplant incorporated, preemergence, or postemergence treatment in soybeans and as a post-directed treatment in cotton.

### **WEED RESISTANCE MANAGEMENT**

For resistance management, please note that LPI.A013 contains both a Group 15 and a Group 14 herbicide. Any weed population may contain plants naturally resistant to Group 15 and/or Group 14 herbicides. The resistant individuals may dominate the weed population if these herbicides are used repeatedly in the same fields.

Appropriate resistance-management strategies should be followed.

To delay herbicide resistance take one or more of the following steps:

- Rotate the use of **LPI.A013** or other Group 15 and/or Group 5 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures from a different group if such use is permitted; where information on resistance in target weeds species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Fields should be scouted prior to application to identify the weed species present and their growth stage to determine if the intended application will be effective. Fields should be scouted after application to verify that the treatment was effective.
- Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally

controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.

If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.

- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.

Additional Best Management Practices include:

- Plant into weed-free fields and keep fields as weed-free as possible.
- Fields with difficult to control weeds should be rotated to crops that allow the use of herbicides with alternative mechanisms of action or different management practices.
- To the extent possible do not allow weed escapes to produce seeds, roots or tubers. Manage weed seeds at harvest and postharvest to prevent a buildup of the weed seed-bank.
- Prevent field-to-field and within-field movement of weed seed or vegetative propagules. Thoroughly clean plant residues from equipment before leaving fields.
- Prevent an influx of weeds into the field by managing field borders.
- Identify weeds present in the field through scouting and field history and understand their biology. The weed-control program should consider all of the weeds present.
- Difficult to control weeds may require sequential applications of herbicides with differing mechanisms of action.
- Apply this herbicide at the correct timing and rate needed to control the most difficult weed in the field.
- Use a broad-spectrum soil-applied herbicide with a mechanism of action that differs from this product as a foundation in a weed-control program. Do not use more than two applications of this or any other herbicide with the same mechanism of action within a single growing season unless mixed with an herbicide with another mechanism of action with an overlapping spectrum for the difficult-to-control weeds.
- If resistance is suspected, treat weed escapes with an herbicide with a different method of action or use non-chemical methods to remove escapes.
- Report any incidence of non-performance of this product against a particular weed species to your Loveland Products, Inc. retailer, representative or call 1-888-574-2878. If resistance is suspected, treat weed escapes with an herbicide having a different mechanism of action and/or use non-chemicals means to remove escapes, as practical, with the goal of preventing further seed production.
- Contact your local sales 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 mechanisms of action. 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.

## MIXING INSTRUCTIONS

Prepare no more spray mixture than is needed for the immediate operation. Thoroughly clean the spray equipment before using **LPI.A013**. Vigorous agitation is necessary to maintain uniformity of the spray mixture. Maintain maximum agitation throughout the spraying operation. Do not allow spray mixture to stand overnight in the spray tank. Flush the spray equipment thoroughly following each use and apply the rinsate to a previously treated area.



### Application in Water or Fluid Fertilizers

**LPI.A013 Alone:** Add 1/2 of the required amount of water or fluid fertilizer to the spray or mixing tank. With the agitator running, add **LPI.A013** into the spray tank. Continue agitation while adding the remainder of the water or fluid fertilizer. Begin application of the spray solution after the **LPI.A013** has completely dispersed in the water or fluid fertilizer. Maintain agitation until all of the mixture has been applied.

**LPI.A013 + Tank Mixtures:** Add 1/2 of the required amount of water or fluid fertilizer to the mix tank. Start the agitator running before adding any tank mix partners. In general, tank mix partners should be added in this order: products packaged in water-soluble packaging, wettable powders, wettable granules (dry flowables), liquid flowables, liquids such as **LPI.A013**, and emulsifiable concentrates. Always allow each tank mix partner to become fully dispersed before adding the next product.

Provide sufficient agitation while adding the remainder of the water. Maintain agitation until all of the mixture has been applied.

- (1) When using **LPI.A013** in tank mixtures, all products in water-soluble packaging should be added to the tank and mixed with plain water before any other tank mix partner, including **LPI.A013**. Allow the water-soluble packaging to completely dissolve and the product(s) to completely disperse before adding any other tank mix partner to the tank.
- (2) Water-soluble packets will not properly dissolve in most spray solutions that contain fluid fertilizers.

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. Do not exceed any label dosage rate. The most restrictive label precautions and limitations must be followed.

**LPI.A013** is compatible with most common tank mix partners. However, the physical compatibility of **LPI.A013** with tank mix partners should be tested before use. To determine the physical compatibility of **LPI.A013** with other products, use a jar test, as described below.

### Compatibility Test

A jar test is recommended before tank mixing to ensure compatibility of **LPI.A013** with other pesticides. The following test assumes a spray volume of 25 gal./A. For other spray volumes, make appropriate changes in the ingredients.

**Note:** Nitrogen solutions or complete fluid fertilizers may replace all or part of the water in the spray. Because liquid fertilizers vary, even within the same analysis, **always check compatibility with pesticide(s) before use.** Incompatibility of tank mixtures is more common with suspensions of fertilizer and pesticides.

### Test Procedure

1. Add 1.0 pt. of carrier (fertilizer or water) to each of 2 one qt. jars with tight lids. Note: Use the same source of water that will be used for the tank mix and conduct the test at the temperature the tank mix will be applied.
2. To one of the jars, add ¼ tsp. or 1.2 milliliters of a compatibility agent approved for this use, such as Compex® or Unite® (¼ tsp. is equivalent to 2.0 pt./100 gals. spray). Shake or stir gently to mix.
3. To both jars, add the appropriate amount of pesticide(s) in their relative proportions based on label rates. If more than one pesticide is used, add them separately with dry pesticides first, flowables next, and emulsifiable concentrates last. After each addition, shake or stir gently to thoroughly mix.
4. After adding all ingredients, put lids on and tighten, and invert each jar ten times to mix. Let the mixtures stand 15-30 minutes and then look for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. Determine if the compatibility agent is needed in the spray mixture by comparing the two jars. If either mixture separates, but can be remixed readily, the mixture can be sprayed

as long as good agitation is used. If the mixtures are incompatible, test the following methods of improving compatibility: (a) Slurry the dry pesticide(s) in water before addition, or (b) add ½ the compatibility agent to the fertilizer or water and the other ½ to the emulsifiable concentrate or flowable pesticide before addition to the mixture. If incompatibility is still observed, do not use the mixture.

5. After compatibility testing is complete, dispose of any pesticide wastes in accordance with the **Storage and Disposal** section in this label.

**Ground Application:** Apply **LPI.A013** alone or in tank mixtures by ground equipment in a minimum of 10 gallons of spray mixture per acre, unless otherwise specified.

[Optional][For certain ground application equipment approved by Loveland Products, Inc. apply in a minimum of 2 gallons of spray mixture per acre. Contact your local Loveland Products, Inc. representative for a list of approved equipment.]

Use sprayers that provide accurate and uniform application. Calibrate the sprayer before use at the beginning of the season. For **LPI.A013** tank mixtures with wettable powder or dry flowable formulations, use screens and strainers no finer than 50-mesh.

Calculate the amount of herbicide needed for band treatment by the formula:

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{broadcast rate per acre} = \text{amount needed per acre of field}$$

**Chemigation Restriction:** Do not apply **LPI.A013** through any type of irrigation system.

**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 applications prior to the emergence of crops and target weeds, applicators are required to use a Coarse or coarser droplet size (ASABE S641).
- For all other applications, applicators are required to use a Medium or coarser droplet size (ASABE S641).
- For aerial applications: Do not apply when wind speeds exceed 15 mph at the application site. If the wind speed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed- wing aircraft and 90% or less of the rotor diameter for helicopters. Applicators must use ½ 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 when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

**Ground Boom Applications:**

- User must only apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy unless making a turf, pasture, or rangeland application, in which case applicators may apply with a nozzle height no more than 4 feet above the ground.

- For applications prior to the emergence of crops and target weeds, applicators are required to use a Coarse or coarser droplet size (ASABE S572).
- For all other applications, applicators are required to use a Medium or coarser droplet size (ASABE S572).
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

**Boomless Ground Applications:**

- Applicators are required to select the nozzle and pressure that deliver medium or coarser droplet size (ASABE S572.3) for all applications.
- Do not apply when wind speeds exceed 15 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.

**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.

### **BOOMLESS GROUND APPLICATIONS:**

Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

### **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.

### **SENSITIVE AREAS**

**LPI.A013** 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).

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.

### **Cleaning Equipment After Application**

Because some crops, other than soybeans, are sensitive to low rates of **LPI.A013**, special attention must be given to cleaning equipment before spraying a crop other than those registered for use and on this label. Mix only as much spray solution as needed. Immediately after spraying, clean equipment thoroughly using the following procedure:

1. Flush tank, hoses, boom, and nozzles with clean water.
2. Prepare a cleaning solution of one gal. of household ammonia per 50 gal. of water. Many commercial spray tank cleaners may be used as well. Consult your Loveland Products, Inc. representative for a partial listing of approved tank cleaners and more information about proper tank cleaning procedures. Do not use chlorine-based cleaners such as Clorox®.
3. When available, use a pressure washer to clean the inside of the spray tank with this solution. Take care to wash all parts of the tank, including the inside top surface. Completely fill the sprayer with the cleaning solution to ensure contact of the cleaning solution with all internal surfaces of the tank and plumbing. Start agitation in the sprayer and thoroughly re-circulate the cleaning solution for **at least 15 minutes**. All visible deposits must be removed from the spraying system.
4. Flush hoses, spray lines, and nozzles for at least one minute with the cleaning solution.
5. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean water mark. Do not contaminate water when disposing of equipment wash water or rinsate. Do not apply when weather conditions favor drift from target area.
6. Repeat steps 2-5.
7. Remove nozzles, screens, diaphragm check valves and strainers and clean separately in the ammonia cleaning solution after completing the above procedures.
8. Rinse the complete spraying system with clean water.

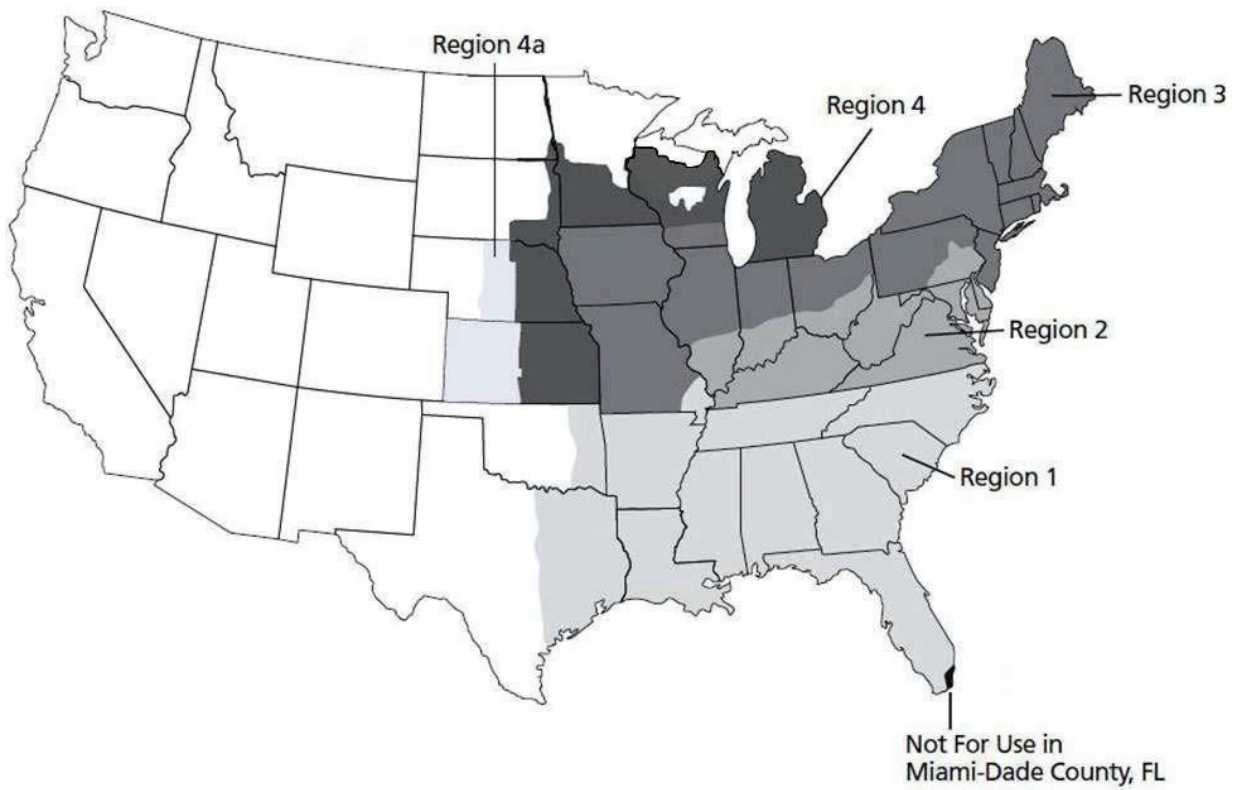
## RESTRICTIONS

- A maximum of 3 pt. of **LPI.A013 (or a maximum of 0.375 lb. a.i./A of fomesafen from any product containing fomesafen)** may be applied per acre per year in Region 1 (see Regional Use Map).
- A maximum of 3 pt. of **LPI.A013 (or a maximum of 0.375 lb. a.i./A of fomesafen from any product containing fomesafen)** may be applied per acre in ALTERNATE years in Region 2 (see Regional Use Map).
- A maximum of 2.5 pt. of **LPI.A013 (or a maximum of 0.313 lb. a.i./A of fomesafen from any product containing fomesafen)** may be applied per acre in ALTERNATE years in Region 3 (see Regional Use Map).
- A maximum of 2 pt. of **LPI.A013 (or a maximum of 0.25 lb. a.i./A of fomesafen from any product containing fomesafen)** may be applied per acre in ALTERNATE years in Region 4 (see Regional Use Map).
- A maximum of 2 pt. of **LPI.A013 (or a maximum of 0.25 lb. a.i./A of fomesafen from any product containing fomesafen)** may be applied per acre in ALTERNATE years in Region 4a (see Regional Use Map). Apply only to soybeans in Region 4a. Do not make a **LPI.A013** application later than June 10th. Cumulative rainfall plus overhead irrigation must total 15 inches from the period of **LPI.A013** application to soybean crop maturity to allow planting of rotational crops listed in this label (refer to Crop Rotation Intervals Following **LPI.A013** Application section). If the soybean crop is lost or the required cumulative rainfall plus irrigation is not received as outlined above, plant only soybeans the following growing season.
- Do not graze treated areas or harvest for forage or hay.
- Do not exceed 2.48 lb. a.i./A/crop of S-metolachlor (0.571 gallon/A **LPI.A013**).
- Do not exceed 2.48 lb. a.i./A per year of S-metolachlor from applications of **LPI.A013** or any other metolachlor-containing product.
- To prevent off-site movement due to runoff or wind erosion:
  - Do not treat powdery dry or light sand soils when conditions are favorable for wind erosion. Under these conditions, the soil surface must first be settled by rainfall or irrigation.
- Do not apply to impervious substrates, such as paved or highly compacted surfaces.
- Do not use tailwater from the first flood or furrow irrigation of treated fields to treat non-target crops, unless at least ½ inch of rainfall has occurred between application and the first irrigation.

## PRECAUTIONS

- Avoid overlapping spray swaths, as injury may occur to rotational crops.

**LPI.A013 - USE RATES AND WEEDS CONTROLLED**  
**REFER TO MAP FOR DEFINITION OF SPECIFIED GEOGRAPHIC REGIONS**  
**LPI.A013 REGIONAL USE MAP**



**REGION 1**  
 (Maximum Rate 3 pt/A (1.63 lb S-metolachlor/A, 0.36 lb fomesafen/A) per year)



**Not for use in Miami-Dade County, FL**

Region 1 Includes the following states or portion of states where <b>LPI.A013</b> may be applied:		
<b>Region 1</b>	Alabama	All areas.
	Arkansas	All areas.
	Florida	All areas except Miami-Dade County.
	Georgia	All areas.
	Louisiana	All areas.
	Mississippi	All areas.
	Missouri	Counties of Bollinger, Butler, Cape Girardeau, Dunklin, Madison, Mississippi, New Madrid, Pemiscot, Perry, Ripley, Scott, Stoddard and Wayne.
	North Carolina	All areas.
	Oklahoma	All areas east of U.S. Highway 75 and east of Indian Nation Parkway.
	South Carolina	All areas.
	Tennessee	All areas.
	Texas	All areas east of U. S. Highway 77 to State Road 239 including all of Calhoun County.

**REGION 2**

**(Maximum Rate 3 pt/A (1.63 lb S-metolachlor/A, 0.36 lb fomesafen/A), alternate years)**

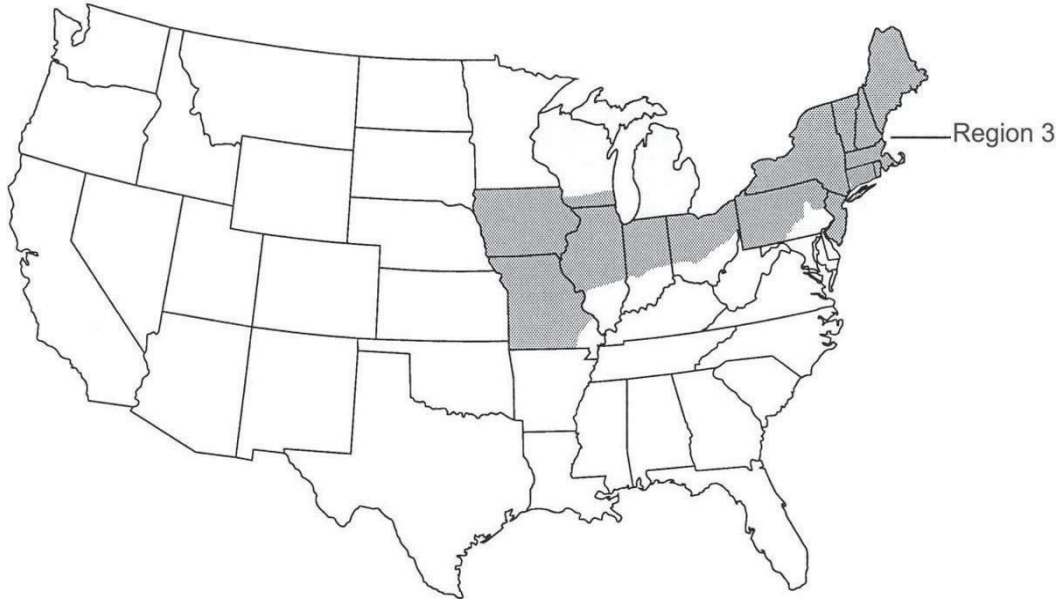


Region 2 Includes the following states or portion of states where <b>LPI.A013</b> may be applied:		
<b>Region 2</b>	Delaware	All areas.
	Illinois	All areas south of interstate 70.
	Indiana	All areas south of interstate 70.
	Kentucky	All areas.
	Maryland	All areas.
	Ohio	All areas south of interstate 70.
	Pennsylvania	All areas south of Interstate 80 to the intersection of U.S. Highway 15 and east of U.S. Highway 15 and U.S. Highway 522.
	Virginia	All areas.
	West Virginia	All areas.



**REGION 3**

(Maximum Rate 2.5 pt/A (1.36 lb S-metolachlor/A, 0.30 lb fomesafen/A), alternate years)



Region 3 Includes the following states or portion of states where <b>LPI.A013</b> may be applied:		
<b>Region 3</b>	Connecticut	All areas.
	Illinois	All areas north of Interstate 70.
	Indiana	All areas north of Interstate 70.
	Iowa	All areas.
	Maine	All areas.
	Massachusetts	All areas.
	Missouri	All areas except those listed in Region 1.
	New Hampshire	All areas.
	New Jersey	All areas.
	New York	All areas.
	Ohio	All areas north of Interstate 70.
	Pennsylvania	All areas except those listed in Region 2.
	Rhode Island	All areas.
	Vermont	All areas.
Wisconsin	All areas south of U.S. Highway 18 between Prairie Du Chien and Madison, and south of Interstate 94 between Madison and Milwaukee.	

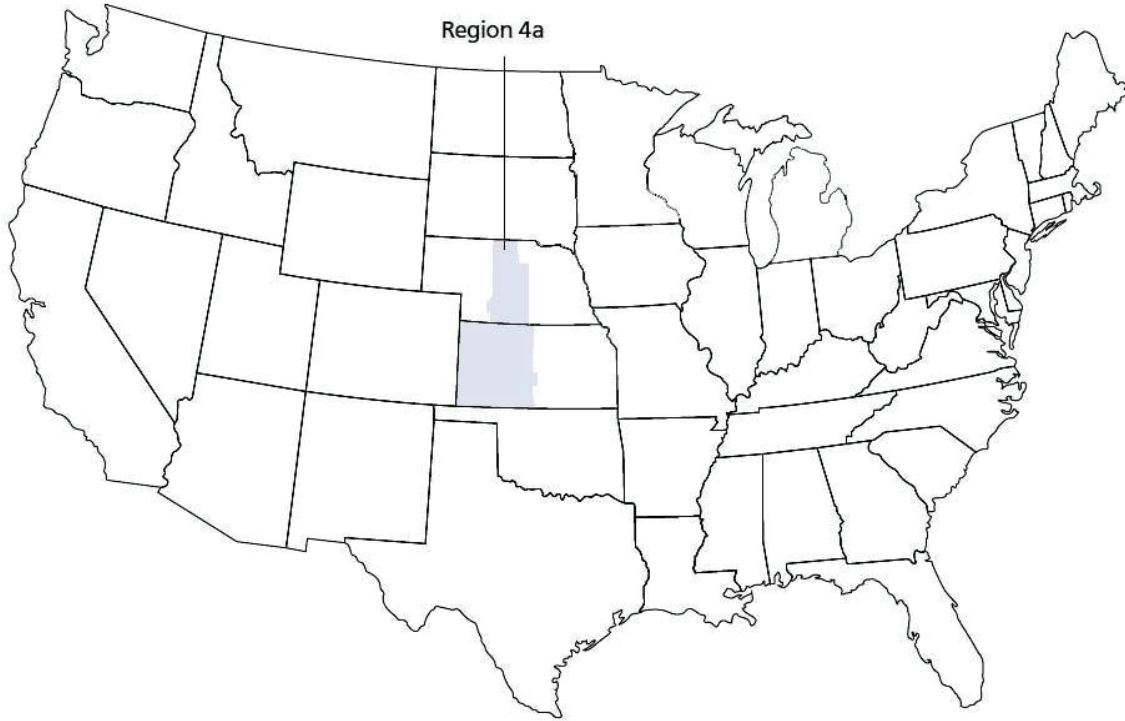
**REGION 4**

(Maximum Rate 2 pt/A (1.09 lb S-metolachlor/A, 0.24 lb fomesafen/A), alternate years)



Includes the following states or portion of states where LPI.A013 may be applied:		
<b>Region 4</b>	Kansas	All counties east of or intersected by U.S. Highway 281.
	Michigan	Southern Peninsula.
	Minnesota	All areas south of Interstate 94.
	Nebraska	All counties east of or intersected by U.S. Highway 281.
	North Dakota	All areas east of Interstate 29 from Fargo south to the South Dakota state line.
	South Dakota	All areas east of Interstate 29 from the North Dakota state line to Watertown, all areas east of Highway 81 from Watertown to Madison and all areas east and south of State Road 34 and U.S. Highway 281 to the Nebraska state line.
	Wisconsin	All areas south of Interstate 94 (except those in Region 3) from Minnesota state line to Eau Claire and south of U.S. Highway 29 from Eau Claire to Green Bay plus Barron, Burnett, Chippewa, Clark, Door, Dunn, Eau Claire, Kewaunee, Langlade, Lincoln, Marathon, Marinette, Menominee, Oconto, Polk, Price, Rusk, Shawano, and St. Croix, Taylor, and Washburn counties. The following counties are excluded: Adams, Marquette, Portage, Waupaca, Waushara and Wood.

**REGION 4a**  
 (Maximum Rate 2 pt/A (1.09 lb S-metolachlor/A, 0.24 lb fomesafen/A), alternate years\*)



Includes the following states or portion of states where <b>LPI.A013</b> may be applied:		
<b>Region 4a</b>	Kansas	All areas west of U.S. Highway 281 to the Colorado state line
	Nebraska	All areas that intersect west of U.S. Highway 281 and east of U.S. Highway 83

**\*Note: Refer to the Restrictions section for additional requirements that must be followed to use LPI.A013 in Region 4a. Refer to the Precautions section for information for the use of LPI.A013 in Region 4a.**

**Replanting**

If replanting is necessary in fields previously treated with **LPI.A013**, the field may be replanted to soybeans. During planting, a minimum of tillage is recommended. Do not apply a second application of **LPI.A013** or any product that contains metolachlor, fomesafen, or S-metolachlor as crop injury or illegal residues may occur in harvested soybeans.

**Rotational Crops**

Do not rotate to food or feed crops other than those listed below.

**Table 1: Crop Rotation Intervals Following LPI.A013 Application<sup>1</sup>**

Rotational Crops	Planting Time From Last LPI.A013 Application
Bean, Dry Bean, Snap Soybean Soybean, Succulent (edamame)	0 months
Cotton Potato	1 month
Bean, Lima Pea, Succulent Peanut	4 months
Barley Oat Rye Wheat	4.5 months
Corn, Field Corn, Seed Corn, Sweet <sup>5</sup> Pepper (transplanted) <sup>1</sup> Popcorn <sup>4</sup> Pumpkin <sup>2</sup> Rice Tomato (transplanted) <sup>1</sup> Watermelon <sup>2</sup>	10 months
Bean, Succulent (other than edamame, snap bean and lima bean) Cantaloupe <sup>2</sup> Cucumber <sup>2</sup> Edible-podded beans and peas not otherwise specified in this table Eggplant Pea, Dried Pepper (direct seeded) Squash, Summer Squash, Winter <sup>2</sup> Sunflower Sweet Potato Tomato (direct seeded)	12 months
Sorghum <sup>3</sup>	18 months
<b>All other crops not listed above</b>	<b>18 months</b>

<sup>1</sup> 4 months in Region 1

<sup>2</sup> 8 months in Region 1

<sup>3</sup> 10 months in Region 1

<sup>4</sup> 12 months in the states of Ohio, Kentucky, Illinois, Indiana, Iowa, Region 4 and Region 4a when applied at 2 pints per acre or more.

<sup>5</sup> 18 months in the states of Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont.

Cover crops for soil building or erosion control may be planted any time, but do not graze or harvest for food or feed. Stand reductions may occur in some areas. Do not graze rotated small grain crops or harvest forage or straw for livestock.

**Rate Ranges**

Where a rate range is within a soil texture/organic matter classification, use a lower rate on soils that are relatively coarse-textured and/or low in organic matter. Use a higher rate on soils that are relatively fine-textured and/or high in organic matter.

**LPI.A013**, when applied as directed, will control or partially control the following weeds.

<b>Table 2: Weeds Controlled or Partially Controlled* by LPI.A013</b>			
<b>Weed</b>	<b>C = Control PC = Partial Control</b>	<b>Weed</b>	<b>C = Control PC = Partial Control</b>
<b><u>Annual Grasses</u></b>			
Barnyardgrass	C	Junglerice	C
Crabgrass spp.	C	Panicum, fall	C
Crowfootgrass	C	Panicum, Texas	PC
Cupgrass, prairie	C	Red rice	PC
Cupgrass, southwestern	C	Signalgrass, broadleaf	C
Foxtail spp.	C	Sandbur spp.	PC
Goosegrass	C	Shattercane	PC
Johnsongrass, seedling	PC	Witchgrass	C
<b><u>Broadleaves</u></b>			
Carpetweed	C	Purslane, common	C
Cocklebur, common	PC	Pusley, Florida	C
Ecliptia	C	Ragweed, common	C
Galinsoga spp.	C	Ragweed, giant	PC
Horseweed/marestail	PC	Redweed	C
Jimsonweed	PC	Sida, prickly/teaweed	PC
Lambsquarters, common	C	Smartweed, ladythumb	C
Morningglory spp.	PC	Smartweed, Pennsylvania	C
Nightshade, eastern black	C	Spurge, spotted	C
Nightshade, hairy	PC	Starbur, bristly	C
Pennycress, field	C	Sunflower, common	PC
Pepperweed, Virginia	C	Velvetleaf	PC
Pigweed spp.	C	Waterhemp spp.	C
Poinsettia, wild	C		
<b><u>Sedges</u></b>			
Nutsedge, yellow	PC		

\*Partial control means significant activity, but not always at a level considered acceptable for commercial weed control.

## COTTON

### Post-Directed Application

Apply **LPI.A013** in emerged cotton as a post-directed treatment using precision post-directed, hooded or shielded application equipment to provide complete coverage of emerged weeds. Apply **LPI.A013** at 2-2.33 pints (1.09-1.26 lb S-metolachlor, 0.24-0.28 lb fomesafen) per acre. **LPI.A013** will control or partially control certain emerged broadleaf weeds such as hemp sesbania, waterhemp, pigweed species and morningglory species. Apply when broadleaf weeds have 2-4 true leaves in a minimum of 10 gallons spray solution per acre. **LPI.A013** should be applied with a non-ionic surfactant at 0.25 to 0.5% v/v or crop oil concentrate at 1% v/v to emerged weeds if applied alone or in a tank mix with products that do not contain a built-in adjuvant. Do not add liquid nitrogen (28% or similar) to **LPI.A013**, or **LPI.A013** tank mixes in cotton. Refer to Table 2 for weeds controlled or partially controlled with soil activation of **LPI.A013** if rainfall or irrigation occurs within 7-10 days after application.

To broaden the weed control spectrum, **LPI.A013** may be tank mixed with other labeled post-directed herbicides such as Caparol (prometryn, EPA Reg. No. 100-620), Direx (diuron, EPA Reg. No. 66222-54), Envoke® (trifloxysulfuron-sodium, EPA Reg. No. 100-1132), Karmex (diuron, EPA Reg. No. 66222-51), Layby™ Pro (linuron plus diuron, EPA Reg. No. 61842-20), Suprend® (prometryn plus trifloxysulfuron-sodium, EPA Reg. No. 100-1163) or glyphosate brands for use in glyphosate-resistant cotton only. Refer to the tank-mix partner label for precautionary statements, restrictions, rates and a list of weeds controlled.

Cotton foliage is not tolerant to **LPI.A013** applications. Avoid contact to cotton foliage and stems that are not fully barked as unacceptable injury will occur. Application equipment should be calibrated (spray pressure, nozzle type and configuration, and orifice size) to avoid fine spray droplets contacting green cotton stems and foliage.

### Post-Directed Application Timing in Cotton

**LPI.A013** may be applied to cotton at least 6 inches in height through layby as a post-directed application. All post-directed applications should avoid spray contact with any green non-barked parts of the cotton plant or foliage as unacceptable injury will occur. Follow the application timing recommendations below for post-directed applications in cotton.

#### Shielded and Hooded Applications

Make a precision post-directed **LPI.A013** application to the base of the cotton plant avoiding contact with the cotton stem or foliage when cotton is at least 6 inches in height to avoid cotton injury. Use only hooded or shielded spray equipment to apply **LPI.A013** in cotton that is at least to 6 inches in height. Adjust nozzles to provide full coverage of emerged target weeds.

#### Layby Applications

Make a post-directed **LPI.A013** application to the base of the cotton plant avoiding contact with any non-barked portion of the cotton plant or foliage. Use precision post-directed equipment or hooded or shielded sprayers on cotton that has developed a minimum of 4 inches of brown bark through layby. Application equipment should be configured to provide full coverage of emerged target weeds.

### Restrictions - Cotton

- Do not apply **LPI.A013** later than 80 days before harvest.
- Do not apply more than 2.33 pints (1.26 lb S-metolachlor, 0.28 lb fomesafen) per acre of **LPI.A013** in any year and also adhere to the maximum rate that may be applied in each geographic region (refer to the **LPI.A013** Regional Use Map).
- Do not graze or feed forage or fodder from cotton to livestock.

## SOYBEAN

### LPI.A013 FOUNDATION TREATMENT FOR PLANNED TWO-PASS WEED CONTROL PROGRAMS IN ALL TILLAGE SYSTEMS

**LPI.A013** at 2 pt./A (1.09 lb S-metolachlor, 0.24 lb fomesafen/A) may be applied as a preemergence application on all soils to reduce competition from weeds for a period of up to 5 weeks when followed by a planned postemergence herbicide application in conventional and glyphosate-resistant soybeans. Refer to Table 2 for weeds controlled or partially controlled. For the postemergence herbicide application, consult the selected postemergence herbicide manufacturer's label for weeds controlled, optimum weed size, application rate, additional use directions, precautions, and limitations before use.

**Preplant Surface Applied:** For minimum-tillage or no-tillage systems only, **LPI.A013** may be applied at 2 pt./A (1.09 lb S-metolachlor/A, 0.24 lb fomesafen/A) prior to soybean planting. If weeds are present at the time of treatment, apply **LPI.A013** in a tank mixture with a burndown herbicide (such as, Gramoxone® SL 2.0 (paraquat, EPA Reg. No. 100-1431) or glyphosate brands). To the extent possible, minimize movement of treated soil out of the row or untreated soil to the surface during planting, or weed control will be diminished. Follow with a postemergence herbicide applied at the labeled rate and within the specific growth stage for soybeans and weed spectrum. Recommended postemergence treatments include any product or combination of products labeled to control the specific weeds remaining in the field, including glyphosate (such as, Touchdown or Roundup brands) (for use on glyphosate-resistant soybeans only).

**Preplant Incorporated:** Apply **LPI.A013** at 2 pt./A (1.09 lb S-metolachlor/A, 0.24 lb fomesafen/A) in conventional tillage systems where incorporation into the top 2 inches of soil occurs within 7 days after application using a finishing disk, harrow, rolling cultivator or similar implement capable of providing uniform 2-inch incorporation. Follow with a postemergence herbicide applied at the labeled rate and within the specific growth stage for soybeans and weed spectrum. Recommended postemergence treatments include any product or combination of products labeled to control the specific weeds remaining in the field, including glyphosate (such as, Touchdown or Roundup brands) (for use on glyphosate resistant soybeans only).

**Preemergence:** Apply **LPI.A013** at 2 pt./A (1.09 lb S-metolachlor/A, 0.24 lb fomesafen/A) during planting (behind the planter), or after planting, but before weeds or soybeans emerge in conventional, conservation, or no-till systems. If weeds are present at the time of treatment, apply **LPI.A013** in a tank mixture with a burndown herbicide (such as, Gramoxone SL 2.0 (paraquat, EPA Reg. No. 100-1431) or glyphosate brands). Follow with a postemergence herbicide applied at the labeled rate and within the specific growth stage for soybeans and weed spectrum. Recommended postemergence treatments include any product or combination of products labeled to control the specific weeds remaining in the field, including glyphosate (such as, Touchdown or Roundup brands) (for use on glyphosate-resistant soybeans only).

### LPI.A013 IN CONVENTIONAL TILLAGE SYSTEMS

For conventional tillage systems, **LPI.A013** may be applied preplant incorporated or preemergence for control or partial control of weeds listed in Table 2. **LPI.A013** may be applied alone, or in tank mix or followed sequentially with postemergence herbicides to broaden the weed control spectrum or control newly emerged weeds. Refer to Table 3 for **LPI.A013** rates.

#### Preplant Incorporated Application

Incorporate **LPI.A013** uniformly into the top 2 inches of soil within 7 days after application and before planting using a disk, field cultivator, rolling cultivator, or similar implement. Apply **LPI.A013** preplant incorporated if furrow irrigation is used or when a period of dry weather after application is expected.

**Preemergence Application**

Apply during planting (behind the planter), or after planting, but before weeds or soybeans emerge. Dry weather following preemergence application of **LPI.A013** may reduce effectiveness. If weeds develop, cultivate uniformly with shallow tilling equipment such as a rotary hoe that will not damage soybeans.

**Table 3: LPI.A013 Use Rates - Conventional Tillage Systems (Broadcast Rates)**

Soil Texture	Regions	Pints/A (lb ai/A)	
		0.5 to 3% Organic Matter	Over 3% Organic Matter
<b>COARSE</b> (Sand, loamy sand, sandy loam)	1, 2	2 (1.09 lb S-metolachlor, 0.24 lb fomesafen)	2-2.25 (1.09-1.22 lb S-metolachlor, 0.24-0.27 lb fomesafen)
	3	2 (1.09 lb S-metolachlor, 0.24 lb fomesafen)	2-2.25 (1.09-1.22 lb S-metolachlor, 0.24-0.27 lb fomesafen)
	4, 4a	2 (1.09 lb S-metolachlor, 0.24 lb fomesafen)	2 (1.09 lb S-metolachlor, 0.24 lb fomesafen)
<b>MEDIUM</b> (Loam, silt loam, silt)	1, 2	2.25-2.5 (1.22-1.36 lb S-metolachlor, 0.27-0.30 lb fomesafen)	2.5-2.75 (1.36-1.49 lb S-metolachlor, 0.30-0.33 lb fomesafen)
	3	2-2.25 (1.09-1.22 lb S-metolachlor, 0.24-0.27 lb fomesafen)	2.25-2.5 (1.22-1.36 lb S-metolachlor, 0.27-0.30 lb fomesafen)
	4, 4a	2 (1.09 lb S-metolachlor, 0.24 lb fomesafen)	2 (1.09 lb S-metolachlor, 0.24 lb fomesafen)
<b>FINE</b> (Sandy clay loam, sandy clay, silty clay, silty clay loam, clay, clay loam)	1, 2	2.75-3 (1.49-1.63 lb S-metolachlor, 0.33-0.36 lb fomesafen)	2.75-3 (1.49-1.63 lb S-metolachlor, 0.33-0.36 lb fomesafen)
	3	2.5* (1.36 lb S-metolachlor, 0.30 lb fomesafen)	2.5* (1.36 lb S-metolachlor, 0.30 lb fomesafen)
	4, 4a	2* (1.09 lb S-metolachlor, 0.24 lb fomesafen)	2* (1.09 lb S-metolachlor, 0.24 lb fomesafen)

\*If weeds emerge before full canopy closure, apply an appropriate postemergence product.



## LPI.A013 USE RATES FOR REDUCED AND NO-TILL SYSTEMS

### Preplant Surface and Preemergence Application

**LPI.A013** may be used in reduced-till and no-till systems. **LPI.A013** may be applied up to 15 days before planting or preemergence, but before soybean emergence. For control or partial control of weeds listed in Table 2, use the high end of the rate range for **LPI.A013** applications made 15 days before planting. Refer to Table 4 for **LPI.A013** rates. If weeds are present at time of application, burndown herbicides may be tank mixed with **LPI.A013** (see Burndown Weed Control section). **LPI.A013** may be followed sequentially with postemergence herbicides to broaden the weed control spectrum or control newly emerged weeds.

**Table 4: LPI.A013 Use Rates for Reduced-Till and No-Till Systems (Broadcast Rates)**

Soil Texture	Regions	Pints/A <sup>1</sup> (lb ai/A)
<b>COARSE</b> (Sand, loamy sand, sandy loam)	1, 2	2-2.5 (1.09-1.22 lb S-metolachlor, 0.24-0.27 lb fomesafen)
	3	2-2.25 (1.09-1.22 lb S-metolachlor, 0.24-0.27 lb fomesafen)
	4, 4a	2* (1.09 lb S-metolachlor, 0.24 lb fomesafen)
<b>MEDIUM</b> (Loam, silt loam, silt, sandy clay, sandy clay loam)	1, 2	2.5-2.75 (1.36-1.49 lb S-metolachlor, 0.30-0.33 lb fomesafen)
	3	2.25-2.5 (1.22-1.36 lb S-metolachlor, 0.27-0.30 lb fomesafen)
	4, 4a	2* (1.09 lb S-metolachlor, 0.24 lb fomesafen)
<b>FINE</b> (Sandy clay loam, sandy clay, silty clay, silty clay loam, clay, clay loam)	1, 2	2.75-3 (1.49-1.63 lb S-metolachlor, 0.33-0.36 lb fomesafen)
	3	2.5* (1.36 lb S-metolachlor, 0.30 lb fomesafen)
	4, 4a	2* (1.09 lb S-metolachlor, 0.24 lb fomesafen)

\*If weeds emerge before full canopy closure, apply an appropriate postemergence product.

<sup>1</sup>Use the lower rate range for low residue level or soils with less than 3% organic matter. Use the higher rate range for high residue level or soils with greater than 3% organic matter.

### BURNDOWN WEED CONTROL

**LPI.A013** can be used as part of a burndown herbicide program for control of existing vegetation prior to soybean planting and/or emergence in conservation tillage (reduced-tillage/no-till systems). **LPI.A013** may be tank mixed with 2,4-D low volatile ester (LVE), Gramoxone SL 2.0 (paraquat, EPA Reg. No. 100-1431), glyphosate, Fusilade® DX (fluazifop-p-butyl, EPA Reg. No. 100-1070), Fusion® (fluazifop-p-butyl plus fenoxaprop-p-ethyl, EPA Reg. No. 100-1059), Poast Plus® (sethoxydim, EPA Reg. No. 7969-88), or Select® (clethodim, EPA Reg. No. 59639-78) for control of emerged weeds prior to soybean planting or crop emergence. Refer to the tank mix product labels for specific rates, use directions, precautions, and limitations.

## HERBICIDES THAT MAY BE APPLIED POSTEMERGENCE FOLLOWING LPI.A013

If required, application of **LPI.A013** alone or in tank mixture may be followed by an application of a postemergence herbicide to provide additional control of certain weeds. Postemergence herbicides such as those listed below but not limited to may be applied:

Aim® (carfentrazone-ethyl, EPA Reg. No. 279-3241)  
Arrow® (clethodim, EPA Reg. No. 66222-60)  
Assure® II (quizalofop-p-ethyl, EPA Reg. No. 5481-646)  
Basagran® or Biscayne™ (bentazon, EPA Reg. No. 66330-413 or 91234-102)  
Classic® (chlorimuron, EPA Reg. No. 352-436)  
Cobra® or Mamba™ (lactofen, EPA Reg. No. 74530-92 or 91234 -169)  
Extreme®<sup>1</sup> (imazethapyr plus glyphosate, EPA Reg. No. 241-405)  
FirstRate® or FrontRunner™ (cloransulam, EPA Reg. No. 62719-275 or 91234-84)  
Fusilade® DX (fluazifop-p-butyl, EPA Reg. No. 100-1070)  
Fusion® (fluazifop-p-butyl plus fenoxaprop-p-ethyl, EPA Reg. No. 100-1059)  
Harmony® GT XP (thifensulfuron, EPA Reg. No. 279-9577)  
Inflame™<sup>2</sup> (glufosinate EPA Reg. No. or 91234-82)  
Poast® (sethoxydim, EPA Reg. No. 7969-58)  
Poast Plus® (sethoxydim, EPA Reg. No. 7969-88)  
Pursuit® or Pemex™ (imazaethapyr, EPA Reg. No. 241-310 or 91234-168)  
Raptor® or Octivio™ (imazamox, EPA Reg. No. 241-379 or 91234-88)  
Resource® (flumiclorac, EPA Reg. No. 59539-82)  
Scepter® (imazaquin, EPA Reg. No. 5481-597)  
Select® (clethodim, EPA Reg. No. 59639-78)  
Synchrony® STS® (chlorimuron ethyl plus thifensulfuron methyl, EPA Reg. No. 352-573)  
Synchrony® XP (chlorimuron ethyl plus thifensulfuron methyl, EPA Reg. No. 352-648)  
Ultra Blazer® or Derecho™ (acifluorfen, EPA Reg. No. 70506-60 or 91234-108)

<sup>1</sup>Use on glyphosate-resistant soybeans only.

<sup>2</sup>Use on LibertyLink® soybeans only.

Refer to the individual product labels for use directions, use rates, and special precautions/restrictions.

### POSTEMERGENCE APPLICATION

**LPI.A013** may be applied at 2-2.33 pt./A (1.09-1.26 lb S-metolachlor/A, 0.24-0.28 lb fomesafen/A) as an early postemergence application in soybeans. Necrotic spotting, bronzing, leaf crinkling or curling of soybean leaves may occur following postemergence application, but soybeans soon outgrow these effects and develop normally. Refer to Table 2 for weeds controlled or partially controlled with soil activation of **LPI.A013** if rainfall or irrigation occurs within 7-10 days after postemergence application. **LPI.A013** alone may control or partially control certain emerged broadleaf weeds, however, for broad spectrum control, tank mix **LPI.A013** with glyphosate (such as Touchdown or Roundup brands) in glyphosate-resistant soybeans only. Add nonionic surfactant (NIS) containing at least 75% surface-active agent, at 0.25% v/v to the final spray volume if **LPI.A013** is applied alone or tank mixed with glyphosate products that do not contain a built-in adjuvant. Do not use crop oil concentrate (COC) when applying **LPI.A013** postemergence as these spray adjuvants may increase soybean injury.

#### Tank Mixtures for Postemergence Applications in Soybeans:

**LPI.A013** may be tank mixed with one or more of the following herbicides:

Fusilade DX (fluazifop-p-butyl, EPA Reg. No. 100-1070)  
Fusion (fluazifop-P-butyl plus fenoxaprop-p-ethyl, EPA Reg. No. 100-1059)

Glyphosate products (such as Glyphomax® (EPA Reg. No. 62719-323))\*

\*Apply to glyphosate-resistant soybeans only.

**LPI.A013** may be tank mixed with one or more of the following insecticides:

Karate® Insecticide with Zeon Technology (lambda-cyhalothrin, EPA Reg. No. 100-1097)

Refer to this label and the labels of the tank mix partners for application methods and timings, precautionary statements, restrictions, rates, and weeds or insects controlled.

#### **Restrictions for Postemergence Application to Soybeans**

- Apply only in water as the carrier for postemergence applications.
- Do not use **LPI.A013** postemergence on soybeans that are under stress including but not limited to that caused by drought, insect, disease, or injury from cultivation.
- Do not exceed 2.33 pt./A (1.26 lb S-metolachlor/A, 0.28 lb fomesafen/A) of **LPI.A013** in a single postemergence application.
- Do not exceed 3.0 pt./A (1.63 lb S-metolachlor/A, 0.36 lb fomesafen/A) of **LPI.A013** per acre per season. Refer to **Regional Use Map** for maximum rate that may be applied within a specific region.
- Do not exceed 2.48 lb a.i./A per year of S-metolachlor from applications of **LPI.A013** or any other metolachlor-containing product.
- Make postemergence applications at least 90 days before harvest.
- Do not graze or feed treated forage or hay from soybeans to livestock following a postemergence application of **LPI.A013**.

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in a tightly closed container in a cool, dry place. Store in original container and out of reach of children, preferably in a locked storage area.

**PESTICIDE DISPOSAL:** Pesticide spray mixture or rinsate that cannot be used must be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the 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:

**[For plastic containers ≤ 5 gallons: Nonrefillable Container:** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. 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 ¼ 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.]

**[For plastic containers > 5 gallons: Nonrefillable container.** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Recap 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. Turn the container over onto its other 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.]

## CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

BEFORE BUYING OR USING THIS PRODUCT, read the entire Directions for Use and the following Conditions of Sale and Limitation of Warranty and Liability. By buying or using this product, the buyer or user accepts the following Conditions of Sale and Limitation of Warranty and Liability, which no employee or agent of LOVELAND PRODUCTS, INC. or the seller is authorized to vary in any way.

Follow the Directions for Use of this product carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop or other plant injury, ineffectiveness, or other unintended consequences may result from such risks as weather or crop conditions, mixture with other chemicals not specifically identified in this product's label, or use of this product contrary to the label instructions, all of which are beyond the control of LOVELAND PRODUCTS, INC. and the seller. To the extent consistent with applicable law, the buyer or user of this product assumes all such inherent risks.

Subject to the foregoing inherent risks, LOVELAND PRODUCTS, INC. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use when the product is used in strict accordance with such Directions for Use under normal conditions of use. EXCEPT AS WARRANTED IN THIS LABEL AND TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THIS PRODUCT IS SOLD "AS IS," AND LOVELAND PRODUCTS, INC. MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ELIGIBILITY OF THIS PRODUCT FOR ANY PARTICULAR TRADE USAGE.

IN THE UNLIKELY EVENT THAT BUYER OR USER BELIEVES THAT LOVELAND PRODUCTS, INC. HAS BREACHED A WARRANTY CONTAINED IN THIS LABEL AND TO THE EXTENT REQUIRED BY APPLICABLE LAW, BUYER OR USER MUST

SEND WRITTEN NOTICE OF ITS CLAIM TO THE FOLLOWING ADDRESS: LOVELAND PRODUCTS, INC., ATTENTION: LAW DEPARTMENT, P.O. BOX 1286, GREELEY, CO 80632-1286.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE BUYER'S OR USER'S EXCLUSIVE REMEDY FOR ANY INJURY, LOSS, OR DAMAGE RESULTING FROM THE HANDLING OR USE OF THIS PRODUCT, INCLUDING BUT NOT LIMITED TO CLAIMS OF BREACH OF WARRANTY OR CONTRACT, NEGLIGENCE, STRICT LIABILITY, OR OTHER TORTS, SHALL BE LIMITED TO ONE OF THE FOLLOWING, AT THE ELECTION OF LOVELAND PRODUCTS, INC. OR THE SELLER: DIRECT DAMAGES NOT EXCEEDING THE PURCHASE PRICE OF THE PRODUCT OR REPLACEMENT OF THE PRODUCT. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, LOVELAND PRODUCTS, INC. AND THE SELLER SHALL NOT BE LIABLE TO THE BUYER OR USER OF THIS PRODUCT FOR ANY CONSEQUENTIAL, SPECIAL, OR INDIRECT DAMAGES, OR DAMAGES IN THE NATURE OF A PENALTY.

Fusilade DX<sup>®</sup>, Fusion<sup>®</sup>, Gramoxone<sup>®</sup> SL 2.0, Karate<sup>®</sup> Insecticide with Zeon Technology, and Touchdown<sup>®</sup> are Trademarks of a Syngenta Group Company

Aim<sup>®</sup> trademark of FMC Corporation

Arrow<sup>®</sup> trademark of Agrilience, LLC

Assure II<sup>®</sup> trademark of Nissan Chemical Industries, Ltd.

Basagran<sup>®</sup>, Extreme<sup>®</sup>, Poast<sup>®</sup>, Poast Plus<sup>®</sup>, Pursuit<sup>®</sup>, Raptor<sup>®</sup>, and Scepter<sup>®</sup> trademarks of BASF Ag Products

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Clorox<sup>®</sup> trademark of The Clorox Company.

Cobra<sup>®</sup>, Resource<sup>®</sup>, and Select<sup>®</sup> trademarks of Valent USA Corporation

Compex<sup>®</sup> trademark of KALO, Inc.

FirstRate<sup>®</sup> and Glyphomax<sup>®</sup> trademarks of Dow AgroSciences

Liberty<sup>®</sup> and LibertyLink<sup>®</sup> trademarks of Bayer CropScience

Roundup<sup>®</sup> trademark of Monsanto Company

Ultra Blazer<sup>®</sup> trademark of United Phosphorus, Inc.

Unite<sup>®</sup> trademark of United Agri Products

Biscayne<sup>™</sup>, Mamba<sup>™</sup>, FrontRunner<sup>™</sup>, Inflamm<sup>™</sup>, Pemex<sup>™</sup>, Octivio<sup>™</sup>, and Derecho<sup>™</sup> are trademarks of Atticus, LLC.

[LPI.A013<sup>™</sup>] is a trademark of Loveland Products, Inc.

{LANGUAGE ON LABEL AFFIXED TO CONTAINER}

S-METOLACHLOR	GROUP 15	HERBICIDE
FOMESAFEN	GROUP 14	HERBICIDE

**LPI.A013™**

[For control of certain grasses and broadleaf weeds in soybeans and cotton]

<b>ACTIVE INGREDIENTS:</b>	<b>(% by weight)</b>
S-metolachlor*.....	46.4%
Sodium Salt of Fomesafen**.....	10.2%
<b>OTHER INGREDIENTS:</b> .....	<b>43.4%</b>
<b>TOTAL</b> .....	<b>100.0%</b>

LPI.A013 is formulated as an emulsifiable concentrate (EC). LPI.A013 contains 4.34 lb of S-Metolachlor and 0.95 lb of the sodium salt of fomesafen per gallon.

\*CAS No. 87392-12-9

\*\*CAS No. 108731-70-0

Contains petroleum distillates.

**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 the label, find someone to explain it to you in detail.)

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 eye.</li> <li>Call a poison control center or doctor for treatment advice.</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>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 do so by the poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If inhaled:</b>	<ul style="list-style-type: none"> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. <b>FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-866-944-8565.</b>	

For Chemical Emergency:  
 Spill, Leak, Fire, Exposure, or Accident, Call CHEMTREC Day or Night  
 Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)

**PRECAUTIONARY STATEMENTS  
 HAZARDS TO HUMANS AND DOMESTIC ANIMALS  
 WARNING/AVISO**

Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear protective eyewear such as goggles, face shield, or safety glasses. Harmful if swallowed. Wash 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.

**ENVIRONMENTAL HAZARDS:** For Terrestrial Uses: 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 contaminate water when disposing of equipment wash water or rinsate. Do not apply when weather conditions favor drift from target area. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

**STORAGE AND DISPOSAL**

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See inside label booklet for additional Precautionary Statements and Directions for Use.

EPA Reg. No. 34704-1159  
 EPA Est. No.  
 Net Weight:  
 [Label ID Print Code]

**MANUFACTURED FOR:**  
 LOVELAND PRODUCTS, INC.  
 P.O. BOX 1286  
 GREELEY, COLORADO 80632-1286