



U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Registration Division (7505P)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

EPA Reg. Number:

34704-1149

Date of Issuance:

7/14/20

NOTICE OF PESTICIDE:

Registration
 Reregistration
(under FIFRA, as amended)

Term of Issuance:

Conditional

Name of Pesticide Product:

LPI.A003

Name and Address of Registrant (include ZIP Code):

Robert Avalos
Manager Registrations
Loveland Products Inc.
P.O. Box 1286
Greeley, CO 80632-1286

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A). You must comply with the following conditions:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product under FIFRA when the Agency requires all registrants of similar products to submit such data.

Signature of Approving Official:

Emily Schmid

Emily Schmid, Product Manager 25
Herbicide Branch, Registration Division (7505P)

Date:

7/14/20

2. You are required to comply with the data requirements described in the DCI and EDSP Order identified below:
 - a. Metribuzin GDCI- 101101-1304
 - b. Metribuzin EDSP- 0057184

You must comply with all of the data requirements within the established deadlines. If you have questions about the Generic DCI and EDSP Order listed above, you may contact the Chemical Review Manager in the Pesticide Reevaluation Division:

<http://iaspub.epa.gov/apex/pesticides/f?p=chemicalsearch:1>

3. Make the following label changes before you release the product for shipment:
 - Revise the EPA Registration Number to read, “EPA Reg. No. 34704-1149.”
4. Submit one copy of the final printed label for the record before you release the product for shipment.

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.

If you fail to satisfy these data requirements, EPA will consider appropriate regulatory action including, among other things, cancellation under FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 02/21/2020

If you have any questions, please contact Aleah Holt at 703-347-0482 or by email at holt.aleah@epa.gov.

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}]

ACCEPTED
 7/14/2020
 Under the Federal Insecticide, Fungicide
 and Rodenticide Act as amended, for the
 pesticide registered under
 EPA Reg. No. 34704-1149

Sulfentrazone	GROUP	14	HERBICIDE
Metribuzin	GROUP	5	HERBICIDE

LPI.A003TM

[Alternate Brand Name: Arterio MTZ]

Active Ingredient:	(% by weight)
Sulfentrazone*	18.0%
Metribuzin**	27.0%
Other Ingredients:	55.0%
Total	100.0%

Contains 0.45 lbs. of active ingredient per pound: 0.18 pounds sulfentrazone and 0.27 pounds metribuzin.

* N-[2,4 dichloro-5-[4-(difluoromethyl)-4,5-dihydro-3-methyl-5-oxo-1H-1,2,4-triazol-1-yl]phenyl]methanesulfonamide

** 4-amino-6-(1,1-dimethylethyl)-3-(methylthio)-1,2,4-triazin-5(4H)-one

Contains sulfentrazone and metribuzin, the active ingredients used in Authority[®] MTZ[®] DF Herbicide.

**KEEP OUT OF REACH OF CHILDREN
 CAUTION**

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-

EPA Est. No.:

Net Contents:

[Label ID Print Code]

MANUFACTURED FOR:

LOVELAND PRODUCTS, INC.

P.O. BOX 1286

GREELEY, COLORADO 80632-1286

[LPI.A003TM] is not manufactured, or distributed by FMC Corporation, seller of Authority[®] MTZ[®] DF Herbicide.

{LANGUAGE INSIDE BOOKLET}

FIRST AID	
If inhaled	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.• Call a poison control center or doctor for further treatment advice.
If on skin or clothing:	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.
If in eyes:	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to do so by the poison control center or doctor.• Do not give anything by mouth to an unconscious person.
HOT LINE NUMBER Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact SafetyCall at 1-844-685-9173 for emergency medical treatment information.	

**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
CAUTION**

Causes moderate eye irritation. Harmful if inhaled, swallowed, or absorbed through the skin. Avoid breathing vapor or spray mist. Avoid contact with skin, eyes, or clothing. 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.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants,
- Waterproof gloves,
- Shoes plus socks.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. 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.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands thoroughly after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS:

This pesticide is toxic to marine/estuarine invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to terrestrial and aquatic plants in neighboring areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

Groundwater Advisory:

This product contains chemicals known to leach through soil into groundwater under certain conditions as a result of label use. Use of this product in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Do not use on coarse soils classified as sand, which have less than 1.0% organic matter.

Surface Water Advisory:

LPI.A003 can contaminate surface water through spray drift. Under some conditions, **LPI.A003** may also have a high potential for runoff into surface water (primarily via dissolution in runoff water), for several to many months post-application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlying extremely shallow groundwater areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filler strips, and areas over-lying tile drainage systems that drain to surface waters.

Physical/Chemical Hazards:

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

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

RESTRICTIONS

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

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 State or Tribal agency responsible for pesticide regulation.

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

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 12 hours.

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 over short-sleeve shirt and long pants,
- Waterproof gloves,
- Shoes plus socks.

WEED RESISTANCE MANAGEMENT

LPI.A003 is a mixture of two active ingredients: sulfentrazone and metribuzin, cell membrane disruptor (Group 14) and photosynthesis inhibitor (Group 5), respectively. A given weed population may contain or develop resistance to a herbicide after repeated use. Appropriate resistance-management strategies should be followed to mitigate or delay resistance. If levels of control provided by applications of this product is reduced, and cannot be accounted for by factors such as misapplication, abnormal levels of target species or extremes of weather, it may be the case that target species have developed a strain resistant to applications of this product. Contact your local extension agent, crop advisor, or sales representative to find out if suspected resistant weeds have been found in your region.

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.

If resistance develops, this product may not provide sufficient control of target species. Where you suspect target species are developing resistance, contact State/local agricultural advisors. Integrated weed management guidelines promote an economically viable, environmentally sustainable, and socially acceptable weed control program regardless of the herbicide(s) used. The highlights of successful integrated weed management include:

1. Correctly identify weeds and look for trouble areas within field to identify resistance indicators.
2. Rotate crops.
3. Start the growing season with clean fields.
4. Rotate herbicide modes of action by using multiple modes of action during the growing season and apply no more than 2 applications of a single herbicide mode of action to the same field in a 2-year period. One method to accomplish this is to rotate herbicide tolerant trait systems.
5. Apply listed rates of herbicides to actively growing weeds at the correct time with the right application techniques.
6. Control any weeds that may have escaped the herbicide application.
7. Thoroughly clean field equipment between fields.
8. Scout before and after application.

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.

PRODUCT INFORMATION

LPI.A003 is a dry flowable formulation to be mixed with water and sprayed for selective preemergence or preplant incorporated weed control in asparagus, field corn (grain, seed corn, forage and silage); potato, soybeans, sugarcane and transplanted tomatoes. When applied according to the instructions on this label, **LPI.A003** will control listed broadleaf, and sedge weeds, and provide grass suppression. The mode of action of **LPI.A003** involves uptake by weed roots and shoots. Preemergence and preplant incorporated applications of **LPI.A003** require rainfall or irrigation to activate the herbicide. The amount of rainfall or irrigation required for activation following application depends on existing soil moisture, organic matter content and soil texture. If adequate moisture (1/2" to 1") is not received within 7 to 10 days after the **LPI.A003** treatment, a shallow cultivation may be needed to obtain desired weed control. When sufficient moisture is received after dry conditions, **LPI.A003** will provide control of susceptible germinating weeds.

Proper Handling Instructions:

This product may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells, sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs). This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pads or properly diked mixing/loading areas. Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet 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 washwater 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 100% of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operation containment.

APPLICATION INFORMATION

LPI.A003 is labeled for use on asparagus, field corn (grain, seed corn, forage, and silage), potato, soybeans, sugarcane, and transplanted tomatoes. DO NOT use on any other crops.

Utilize a boom and nozzle sprayers equipped with the appropriate nozzles and screens and adjusted to provide optimum spray distribution and coverage at the appropriate operating pressures. Utilize nozzles that produce minimal amounts of fine spray droplets to avoid spray drift or inadequate foliar and soil coverage. Apply a minimum of 10 gallons of finished spray per acre. Be aware that overlaps and slower ground speeds while starting, stopping, or turning while spraying may result in excessive application and subsequent response.

Sprayer must be accurately calibrated before application. Check sprayer during application to be sure it is working properly.

Water or liquid fertilizer must be used as the carrier for **LPI.A003**, when applied alone, or when tank mixed with other soybean or sugarcane herbicides. A jar test for compatibility of liquid fertilizer and **LPI.A003** tank mix is recommended if the compatibility of the liquid fertilizer and **LPI.A003** is unknown.

Continuous agitation during application is required. Avoid overlap. Shut off spray booms while turning, slowing, or

stopping, as over application may result. Do not store the sprayer overnight or for any extended period of time with the **LPI.A003** spray mixture remaining in the tank.

SOYBEAN TOLERANCE

LPI.A003 has been tested on a number of soybean cultivars, however, it has not been tested on all soybean varieties. The vast majority of cultivars tested when used according to label guidelines have demonstrated tolerance to **LPI.A003**. A limited number of soybean cultivars have shown some level of injury when used according to label guidelines and should not be planted when an **LPI.A003** program is planned.

Do not use LPI.A003 on the following soybean varieties: Altona, AP55, AP 71, Asgrow 6520, Burlison, Coker 102, Coker 156, Dassel, GL 3202, Govan, Maple Amber, NB 3665, NKS 1884, Paloma 350, Portage, Regal, Semmes, Terra-Vig 505, Terra-Vig 606, Tracy, Vansoy, and Vinton 81. For further information regarding soybean tolerance to an **LPI.A003** treatment consult University or Extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on **LPI.A003** under specific local conditions prior to applying product.

If cool/cold weather or heavy rainfall occurs immediately following an **LPI.A003** application, soybean stunting or stand loss could occur. Yields have not been affected where early season stunting has occurred. Injury to soybeans can also occur under the following conditions:

1. Excessive rate for soil type,
2. Boom overlap,
3. Improper sprayer calibration,
4. Error in mixing procedures,
5. When soils have a calcareous surface area or pH greater than 7.5,
6. Soil incorporation deeper than specified,
7. When applied with organophosphate pesticides,
8. When heavy rains occur after application, especially in poorly drained areas,
9. When soybeans are planted less than 1 1/2 inches deep,
10. On any soil with less than 0.5% organic matter.

SPRAY DRIFT REDUCTION PRECAUTIONS

Avoid spraying in windy conditions with sustained winds above 10 mph which is conducive to spray drift. Do not exceed spray pressures of 40 PSI unless specified by the manufacturer of drift reducing spray tips and nozzles.

Spray Drift Management:

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR AND THE GROWER.

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

The following drift management requirements must be followed to avoid off-target movement from aerial applications. These requirements do not apply to forestry applications, public health uses or to applications of dry materials.

1. The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel *with* the air stream and never be pointed downwards more than 45 degrees.
3. Observe the regulations of the State where applications are made if they are more stringent requirements than on this label.
4. Applicators must observe and abide by the requirements of the Aerial Drift Reduction Precautions.

SPRAY DRIFT REDUCTION ADVISORY

Information on Droplet Size:

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the *largest* droplets that provide sufficient coverage for pesticide performance. Applying larger droplets reduces drift potential but will not prevent drift if applications are made improperly or under unfavorable environmental conditions. (See information on Wind, Temperature and Humidity, and Temperature Inversions in subsequent sections).

Controlling Spray Droplet Size:

- **Volume** - Use high flow rate nozzles to apply the greatest practical spray volume. Nozzles with higher rated flow generally produce larger droplets.
- **Pressure** – When higher flow rates are needed, use higher flow rate nozzles rather than increasing spray pressure. Do not exceed the nozzle manufacturer's recommended pressures. Lower pressure produces larger droplets in many types of nozzles.
- **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** - For aerial application, the recommended practice is to orient nozzles so that the spray is released parallel to the airstream. This orientation usually produces larger droplets as compared to other nozzle orientations. Significant nozzle deflection from horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low drift nozzles for both ground and aerial applications. Solid stream nozzles oriented straight back usually produce the largest droplets and the lowest drift potential in aerial applications
- **Boom length** - For some aerial use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.
- **Application Height** - Aerial applications should not be made at a height greater than 10 feet above the top of the target plant canopy unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.
- **Swath Adjustment** - When aerial applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the upwind and downwind edges of the field, the applicator must compensate for this displacement by the path of the aircraft upwind. Swath adjustment or offset distance should increase when conditions favor increased drift potential (higher winds, smaller droplets, etc.).
- **Wind** - Drift potential is lowest between wind speeds of 3-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. Application should be avoided below 3 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they may potentially affect spray drift.
- **Temperature and Humidity** - When making applications in low relative humidity set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.
- **Temperature Inversions** – Do not apply during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small-suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the low speed and variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common during conditions of limited cloud cover and little to no wind. They often begin to form as the sun sets and may often continue into the morning. The presence of a temperature inversion may be indicated by ground fog. However, if fog is not present, the movement of smoke from a ground source or an aircraft smoke generator can also identify inversions. Smoke that remains in layers and moves laterally in a concentrated cloud (under low speed wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.
- **Sensitive Areas** - The pesticide should only be applied when the wind is blowing away from sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target

crops).

Off Target Movement of LPI.A003:

Drift of spray mixtures containing **LPI.A003** must be prevented. Observation of the preceding environmental conditions, correct application equipment design, calibration and application practices will significantly diminish the risk of off-target spray drift. **LPI.A003** can cause significant symptomology by drift onto sensitive crops and other plants. This symptomology may manifest initially as discreet, localized spots where contacted by **LPI.A003** drift mixtures. Depending on concentration of the spray solution and droplets size (effectively determining the dosage of sulfentrazone) and also depending on the inherent sensitivity of the plants involved, these spots or lesions may or may not coalesce. These effects will usually not have lasting effects on plant growth, but will likely reduce the value of affected fruit or foliage where grade or quality are associated with appearance. In severe drift instances with particularly sensitive crops, defoliation of affected foliage could result. Failure to follow these guidelines and environmental prohibitions that then result in off-target movement or drift of **LPI.A003** onto unintended crops or plants, irrespective of severity, constitutes misapplication of this product. To the extent permissible by the applicable law, Loveland Products, Inc. accepts neither responsibility nor liability for potential crop effects that may result from such misapplication of LPI.A003.

BAND TREATMENT APPLICATIONS

For band treatments, apply the broadcast equivalent rate and volume per acre. To determine these:

$$\frac{\text{Band Width (Inches)}}{\text{Row Width (Inches)}} \times \text{Broadcast Rate Per Acre} = \text{Band Rate}$$

$$\frac{\text{Band Width (Inches)}}{\text{Row Width (Inches)}} \times \text{Broadcast Volume Per Acre} = \text{Band Volume}$$

MIXING AND LOADING INSTRUCTIONS

It is important that spray equipment is clean and free of existing pesticide deposits before applying **LPI.A003**. Follow the spray tank cleanout procedures specified on the label of product previously applied before adding **LPI.A003** to the tank.

For best results, fill spray tank with one half the volume of clean water or liquid fertilizer solution needed for the field to be treated. Start agitation system. When mixing **LPI.A003** in spray tank with anything other than clean water (fertilizer, previous herbicide mixtures, etc.). **LPI.A003** should be slurried in a separate *container* with clean water before being added to the spray tank.

Slowly add the slurry to the spray tank. Carefully rinse the slurry container, adding the rinsate to the spray tank. Complete filling the spray tank to the desired level. Continuous spray tank agitation is required at all times to maintain a uniform spray solution. Refer to **RATE TABLE 1** (conventional soybeans) or **RATE TABLE 2** for (reduced rate soybeans) for the proper application rate. Make sure **LPI.A003** is thoroughly mixed before application or before adding another product to the spray tank.

For tank mixtures with other soybean or sugarcane herbicide(s), a jar test should be conducted to ensure product compatibility before full scale mixing. Provided the jar test indicates the mixture to be compatible, prepare the tank mixture as follows. Fill the spray tank one fourth full with clean water. With agitator operating, add the specified amounts of ingredients using the following order: dry granules first, liquid suspensions (flowables) second. Add EC products followed by remaining adjuvants and/or carrier to tank as agitation continues and tank is

filled with liquid carrier.

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.

Apply **LPI.A003** spray mixtures immediately after mixing. Do not store mixture. Do not store the sprayer overnight or for any extended period for time with **LPI.A003** spray mixture remaining in the tank. If **LPI.A003** was tank mixed with other soybean or sugarcane herbicides, all additional directions, restrictions, and precautions for the additional herbicides must also be followed.

SPRAYER EQUIPMENT CLEAN OUT

As soon as possible after spraying **LPI.A003** and before using sprayer equipment for any other applications, the sprayer must be thoroughly cleaned to avoid potential crop effects using the following procedure. Residues left in mixing equipment, spray tanks, hoses, spray booms and nozzles can cause crop effects if they are not properly cleaned. In addition, users must take appropriate steps to ensure proper equipment clean-out for any other products mixed with **LPI.A003** as required on the other product labels.

1. Drain sprayer tank, hoses, spray boom and spray nozzles. Use a high-pressure detergent wash to remove physical sediment and residues from the inside of the sprayer tank and thoroughly rinse. Then, thoroughly flush sprayer hoses, spray boom and spray nozzles with a clean water rinse. Remove and clean spray nozzles and all filters and screens (tank, spray hose and spray tips) separately in the ammonia solution of Step 2.
2. Next, prepare a sprayer cleaning solution by adding three gallons of ammonia (containing at least 3% active) per 100 gallons of clean water. Prepare sufficient cleaning solution to allow the operation of the spray system for a minimum of 15 minutes to thoroughly flush hoses, spray boom and spray nozzles.
3. Convenient and thorough cleaning of the sprayer can be achieved if the ammonia solution or fresh water is left in the spray tank, hoses, spray booms and spray nozzles overnight or during storage.
4. Before using the sprayer, completely drain the sprayer system. Rinse the tank with clean water and flush through the hoses, spray boom, and spray nozzles with clean water. Remove and clean spray nozzles and all filters and screens (tank, spray hose and spray tip) separately in an ammonia solution.
5. Properly dispose of all cleaning solution and rinsate in accordance with Federal, State, and local regulations and guidelines.

Do *not* apply sprayer cleaning solutions or rinsate to sensitive crops.

Do not store the sprayer overnight or for any extended period of time with **LPI.A003** spray solution remaining in the tank, spray lines, spray boom plumbing, spray nozzles or strainers.

If the sprayer has been stored or idle, purge the spray boom and nozzles with clean water before beginning any application.

Should small quantities of **LPI.A003** remain in inadequately cleaned mixing, loading and/or spray equipment, they may be released during subsequent applications potentially causing effects to certain crops and other vegetation. Loveland Products, Inc. accepts no liability for any effects due to inadequately cleaned equipment.

Do not drain or flush equipment on or near desirable trees or plants.

Do not contaminate any body of water including irrigation water that may be used on other crops.

WEEDS CONTROLLED

When applied in accordance with the Product Application information and the specific crop use directions, **LPI.A003** applied alone or in specified tank mixtures will provide control of the following weeds: Refer to the specific crop section

BROADLEAVES	
Common Name	Scientific Name
Amaranth, Palmer	<i>Amaranthus palmeri</i>
Amaranth, Spiny	<i>Amaranthus spinosus</i>
Anoda, spurred	<i>Anoda cristata</i>
Beggarweed, Florida	<i>Desmodium tortuosm</i>
Carpetweed	<i>Mollugo verticillata</i>
Copperleaf, hophornbeam	<i>Acalypha ostryifolia</i>
Croton, tropic	<i>Croton glandulosus</i>
Daisy, American	<i>Eclipta alba</i>
Galinsoga, hairy	<i>Galinsoga ciliate</i>
Groundcherry, clammy	<i>Physalis heterophylla</i>
Groundcherry, cutleaf	<i>Physalis angulate</i>
Jimsonweed	<i>Datura stramonium</i>
Kochia	<i>Kochia scoparia</i>
Ladysthumb	<i>Polygonum periscaria</i>
Lambsquarters, common	<i>Chenopodium album</i>
Morningglory, entireleaf	<i>Ipomoea integruscula</i>
Morningglory, ivyleaf	<i>Ipomoea hederacea</i>
Morningglory, palmleaf	<i>Ipomoea wrightii</i>
Morninggory, purple	<i>Ipomoea turbinate</i>
Morningglory, red	<i>Ipomoea coccinea</i>
Morningglory, smallflower	<i>Jacquemontia tamnifolia</i>
Morningglory, tall	<i>Ipomoea purpurea</i>
Nightshade, eastern black	<i>Solanum ptycanthum</i>
Nightshade, hairy	<i>Solanum sarrachoides</i>
Nightshade, silverleaf	<i>Solanum elaeagnifolicum</i>
Pigweed, redroot	<i>Amaranthus retroflexus</i>
Pigweed, smooth	<i>Amaranthus hybridus</i>
Poorjoe	<i>Diodia teres</i>
Purslane, common	<i>Portulaca oleracea</i>
Senna, coffee	<i>Cassia occidentalis</i>
Sida, prickly (Teaweed)	<i>Sida spinose</i>
Smartweed, Pennsylvania	<i>Polygonum pensylvanicum</i>
Small melon	<i>Cucumis melo</i>
Spurge, spotted	<i>Euphorbia maculate</i>
Starbur, bristly	<i>Acanthospermum hisidum</i>
Velvetleaf	<i>Abutilon theophrasti</i>
Waterhemp, common	<i>Amaranthus rudis</i>
Waterhemp, tall	<i>Amaranthus tuberculatos</i>
GRASSES (suppression only)	
Common Name	Scientific Name
Broadleaf signalgrass	<i>Brachiaria platyphylla</i>
Crabgrass, large	<i>Digitaria sanguinalis</i>
Crabgrass, smooth	<i>Digitaria ischaemum</i>
Goosegrass	<i>Eleusine indica</i>
Johnsongrass, seedling	<i>Sorghum halepense</i>
Orchardgrass	<i>Dactylis glomerate</i>

Panicum, fall	<i>Panicum dichotorniflorum</i>
Panicum, Texas	<i>Panicum texanum</i>
SEDGES*	
Common Name	Scientific Name
Nutsedge, purple	<i>Cyperus rotundus</i>
Nutsedge, yellow	<i>Cyperus esculentus</i>
Sedge, annual	<i>Cyperus compressus</i>

Use rates from Table 2 will provide suppression only.

For winter annual weeds, such as those listed below, and/or other emerged weeds, add the appropriate rate of 2,4-D or glyphosate-based product to LPI.A003 applications	
Chickweed, common	<i>Stellaria media</i>
Deadnettle, purple	<i>Lamiium purpureum</i>
Filed Pennycress	<i>Thlaspi arvense</i>
Henbit	<i>Lamium amplexicaule</i>
Marestail	<i>Hippuris vulgaris</i>
Mustard spp.	<i>Brassica</i> spp.
Prickly lettuce	<i>Lactuca serriola</i>
Shepherd's purse	<i>Capsella bursa pastoris</i>
Speedwell spp.	<i>Veronica</i> spp.
Virginia pepperweed	<i>Lepidium virginicum</i>

ROTATIONAL CROP RESTRICTIONS

Crop	Recropping Interval (Months)
Alfalfa	12
Asparagus	12
Barley	4
Canola	24 ⁽³⁾
Cotton	18 ⁽³⁾ , 12 ⁽⁵⁾
Dry Beans	12
Field Corn ¹	Anytime
Peanuts	12
Potatoes	12
Rice	10
Sorghum	18, 12 ⁽²⁾
Soybean	Anytime
Sugar beets	24 ⁽³⁾⁽⁴⁾
Sugarcane	Anytime
Sunflower	12
Sweet corn	18 ⁽³⁾
Tobacco	12
Tomatoes (transplanted only)	Anytime
Wheat	4
Any crop not listed	18 ⁽³⁾

¹ Field Corn includes corn grown for grain, forage or silage and seed corn.

² Sorghum may be planted after 12 months where **LPI.A003** was applied at 20 oz./A or less in the previous cropping season.

³ Crops that have rotations intervals greater than 12 months after an **LPI.A003** application are the result of crop

injury concerns.

⁴ A rotation interval of 24 months is allowed with a successful Bioassay.

⁵ Cotton may be planted after 12 months where **LPI.A003** was applied at rates 17 oz./A or less and meets the following conditions:

- Medium and fine soils
- pH < 7.2
- Rainfall or irrigation must exceed 15" after application of **LPI.A003** to rotate to cotton.

SOIL CLASSIFICATION CHART

COARSE	MEDIUM	FINE
Sand	Sandy clay loam	Silty clay
Loamy sand	Sandy clay	Silty clay
Sandy loam	Loam	Clay loam
	Silt loam	Clay
	Silt	

ASPARAGUS

LPI.A003 Use Rate Table			
Spring Preemergence Applications			
Broadcast Rate	LPI.A003 Oz. by wt. (lb. a.i.) per acre		
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5	12.5 (0.35) – 16.7 (0.47)	16.7 (0.47) – 22.2 (0.63)	22.2 (0.63)
1.5-3	16.7 (0.47) – 22.2 (0.63)	22.2 (0.63) – 28.1 (0.79)	28.1 (0.79)
>3	22.2 (0.63) – 28.1 (0.79)	28.1 (0.79) – 33.3 (0.94)	33.3 (0.94)
<ul style="list-style-type: none"> • Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories • Use higher rates for soils with pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range. 			

Apply **LPI.A003** as a broadcast treatment to crowns established for one or more years.

Apply in the spring before the crop and weeds emerge. Apply **LPI.A003** at 12.5 to 33.3 ounces by weight per acre in 10 to 40 gallons of finished spray per acre. **LPI.A003** may be applied with other pesticides registered for use with asparagus.

Weeds Controlled:

When applied according to directions in sunflower, **LPI.A003** will provide control of:

Amaranth, Palmer	Nightshade, Eastern black
Galinsoga, hairy	Nutsedge, yellow
Lambsquarters, common	Pigweed, red root
Morningglory, ivyleaf	Pigweed, smooth

For information on other weeds not listed above, refer to Weeds Controlled section in this label.

Precautions:

These Crop Specific Use directions are based upon the interactive effects of **LPI.A003** (sulfentrazone and metribuzin) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under

Product Application Instructions, **LPI.A003** Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with **LPI.A003**. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on **LPI.A003** under specific local conditions.

Restrictions:

- **Pre-harvest Interval (PHI): Do not apply within 14 days prior to harvest.**
- Aerial application is prohibited.
- Do not apply more than 33.3 ounces by weight per acre per 12-month period.
- Do not make more than one **LPI.A003** application per acre per 12-month period. The twelve-month period is considered to begin upon the initial **LPI.A003** application.
- Do not use on soils classified as sand, which have less than 1% organic matter.

FIELD CORN
(Grain, Seed Corn, Forage and Silage)

LPI.A003 Use Rate Table			
Fall, Spring Early Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	LPI.A003 Oz. by wt. (lb. a.i.) per acre		
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5	5.0 (0.14) – 12.5 (0.35)	8.3 (0.23) – 12.5 (0.35)	10.4 (0.29) – 14.6 (0.41)
1.5-3	8.3 (0.23) – 12.5 (0.35)	10.4 (0.29) – 14.6 (0.41)	12.5 (0.35) – 18.8 (0.53)
>3	10.4 (0.29) – 14.6 (0.41)	12.5 (0.35) – 18.8 (0.53)	16.7 (0.47) – 22.2 (0.63)
<ul style="list-style-type: none"> • Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories • Use higher rates for soils with pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range. 			

Preplant (Fall Applications):

LPI.A003 may be applied in the fall as a residual treatment prior to corn planting the following spring.

LPI.A003 can be used alone or in a tank mixture with other herbicides to control susceptible broadleaves, sedges and grasses in corn. Apply **LPI.A003** in conventional tillage or conservation tillage (reduced tillage or no-tillage) cropping systems using rates specified. **LPI.A003** should be applied to the stubble or soil surface and allow moisture from rainfall or snow to move the product into the soil. Do not mechanically incorporate in the fall or spring as this operation can destroy the herbicide barrier allowing weed escapes to occur. Do not apply to frozen soils or existing snow cover to prevent **LPI.A003** runoff from rain or snowmelt that may occur following application. **LPI.A003** may be tank mixed with other burndown herbicides to control emerged weeds in the fall or residual soil herbicides that are labeled for fall use on corn. Select the correct **LPI.A003** use rate for corn for your soil type and organic matter. Use the mid to high rate within the rate range of **LPI.A003** for the appropriate soil type and organic matter, when there is an extended period of time between fall application and corn planting.

Pre-Plant or Pre-Emergence (Spring Applications):

Field Corn

Apply **LPI.A003** at 5 - 22.2 oz/A as a preplant or preemergence treatment control or suppression of grass, broadleaf, and sedge weeds including certain herbicide resistant weeds. Make pre-plant applications within 4 weeks prior to planting. Make pre-emergence applications from planting up to 3 days after planting, if seedlings have not broken the soil surface and the seed furrow is completely closed. Corn should be planted at least 2 inches deep. Applications shall be made with ground equipment in a minimum of 10 gallons of finished spray per acre or by aerial application in a minimum of 5 gallons of finished spray per acre.

If weeds are present, **LPI.A003** should be tank mixed with a burndown herbicide such as Dicamba, Glyphosate, Paraquat, or other appropriate pre-plant or pre-emergence herbicides at the proper labeled rate. Refer to the tank mix partner product labels for specific use directions, weed control claims, precautionary statements, and restrictions. Read and follow the most restrictive label in the tank mix for weed control.

Following an application of **LPI.A003**, a postemergence application of atrazine, glyphosate, glufosinate, or other suitable herbicides is recommended for season long weed control.

LPI.A003 may be applied more than once preemergence to the same crop in split or sequential applications to provide season-long control of difficult-to-control existing or late emerging weeds.

Preplant Incorporated:

LPI.A003 may be applied as a Preplant Incorporated treatment in the spring prior to planting in reduced and conventional tillage corn. **LPI.A003** should be shallowly incorporated or mixed thoroughly into the soil to a maximum depth of 2 inches using a correctly adjusted implement such as a field cultivator, field finisher or disk harrow. Incorporating **LPI.A003** deeper than 2 inches may result in inconsistent weed control. Use the appropriate rate for the soil texture, organic matter, and pH level of the soil. **LPI.A003** can be tank mixed with other soil-applied herbicides and insecticides labeled for preplant incorporation in corn. Observe all precautions. Instructions and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Aerial Application:

Use nozzle types and arrangements that will provide optimum coverage while producing a minimal amount of fine droplets. Apply sufficient spray volume to achieve adequate coverage. Apply a minimum of 5 gallons of finished spray per acre.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Precautions:

These Crop Specific Use directions are based upon the collaborative effects of **LPI.A003** (sulfentrazone and metribuzin) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under Product Application Instructions, **LPI.A003** Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with **LPI.A003**. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on **LPI.A003** under specific local conditions.

Restrictions:

- Do not apply more than 33.3 ounces by weight of **LPI.A003** per twelve-month period. The twelve-month period is considered to begin upon the initial **LPI.A003** application.
- Do not apply to coarse soils classified as sand, which have less than 1% organic matter.
- Do not apply after crop emerges, or if the seedling is close to the soil surface.
- Do not apply to frozen soils or existing snow cover to prevent **LPI.A003** runoff from rain or snowmelt that may occur following application.
- Do not use low-pressure, high volume hand wand equipment to apply **LPI.A003**.

POTATOES

LPI.A003 Use Rate Table			
Preemergence Applications			
Broadcast Rate	LPI.A003 Oz. by wt. (lb. a.i.) per acre		
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5	8.3 (0.23) – 12.5 (0.35)	8.3 (0.23) – 12.5 (0.35)	10.4 (0.29) – 14.6 (0.41)
1.5-3	8.3 (0.23) – 12.5 (0.35)	10.4 (0.29) – 16.7 (0.47)	12.5 (0.35) – 16.7 (0.47)
>3	12.5 (0.35) – 16.7 (0.47)	14.6 (0.41) – 18.8 (0.53)	16.7 (0.47) – 22.2 (0.63)
<ul style="list-style-type: none"> • Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories • Use higher rates for soils with pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range. 			

Ground and Aerial Applications:

Apply **LPI.A003** by aerial application as a preemergence treatment following planting and after drag-off, but prior to potato emergence. Optimum performance can be achieved if **LPI.A003** is applied to the soil surface and either rainfall or overhead irrigation is used to activate the product. If no moisture is received within 7 days following application in areas without irrigation, a shallow incorporation (less than 2 inches) may be needed prior to weed and potato emergence to activate the product.

Select the appropriate use rate based on soil texture and organic matter. For control of emerged weeds at the time of the **LPI.A003** application, an appropriate burndown herbicide and adjuvants labeled for potatoes may be tank mixed with to control these weeds. Do not apply **LPI.A003** if the potatoes have emerged from the soil as undesirable crop response may occur. **LPI.A003** may be tank mixed with other soil-applied herbicides labeled for use in potatoes to improve weed management and increase weed control spectrum.

Apply **LPI.A003** in a minimum of 10 gallons of spray by ground application and 5 gallons of spray by air.

Chemigation Applications:

LPI.A003 may be applied to potatoes through sprinkler irrigation systems including center pivot, lateral move, end tow, solid set or hand move irrigation systems. Apply **LPI.A003** prior to potato emergence using sufficient water (0.25 to 0.5 inch per acre) to provide thorough soil surface coverage, but to avoid runoff of irrigation water.

LPI.A003 may be applied with other products labeled for chemigation use in potatoes.

Irrigation with highly alkaline water (pH greater than 7.5) following a **LPI.A003** soil application may significantly increase the amount of sulfentrazone available in soil solution and could result in adverse crop response. This response will ultimately depend on initial **LPI.A003** application rate, application timing, amount and pH of irrigation water; the sensitivity of the crop and the crop growth stage when irrigated. The risk of adverse crop response will lessen with advances in the crop growth stage.

Weeds Controlled:

When applied according to directions, **LPI.A003** will provide control of:

Amaranth, Palmer	Nightshade, eastern black
Filaree, redstem	Pigweed, redroot
Kochia (ALS and Triazine resistant)	Pigweed, smooth
Lambsquarters, common	Thistle, Russian
Morningglory, ivyleaf	Waterhemp, common
Morningglory, tall	Waterhemp, tall

For information on other weeds not listed above, refer to the Weeds Controlled section in this label.

Precautions:

Potato varieties may vary in their response to herbicide applications. When using **LPI.A003** on an untested variety, always determine the crop tolerance before planting. Some potato varieties, including Sangre, Shepody and Snowden, have shown sensitivity to **LPI.A003**. Caution should be used when planting these varieties on marginal coarse soils.

These Crop Specific Use directions are based upon the interactive effects of **LPI.A003** (sulfentrazone) and the primary soil and environmental factors which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under Product Application Instructions. **LPI.A003** Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section on this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with **LPI.A003**. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on **LPI.A003** under specific local conditions.

Do not apply **LPI.A003** after potato emergence from the soil as undesirable crop response may occur.

Restrictions:

- Use of low pressure, high-volume wand equipment is prohibited.
- Do not use on soils classified as sand, which have less than 1% organic matter.
- Do not apply more than 22.2 ounces by weight per acre per twelve-month period. The twelve-month period is considered to begin upon the initial **LPI.A003** application.

SOYBEANS (Except in CA)

LPI.A003 may be applied as a preemergence or preplant incorporated treatment for the control of weeds in soybeans as described in the following.

Application Information:**Ground Application**

Utilize a boom and nozzle ground sprayer equipped with the appropriate nozzles, spray tips and screens and adjusted to provide optimum spray distribution and coverage at the appropriate operating pressures. Utilize nozzles that produce minimal amounts of fine spray droplets to avoid spray drift or inadequate foliar and/or soil coverage. Apply a minimum of 10 gallons of finished spray per acre by ground. Be aware that overlaps and slower ground speeds while starting, stopping or turning while spraying may result in excessive application and subsequent crop response.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Aerial Application

Use nozzle types and arrangements that will provide optimum coverage while producing a minimal amount of fine droplets. Apply sufficient spray volume to achieve adequate coverage. Apply a minimum of 5 gallons of finished spray per acre.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Fall Applications:

LPI.A003 may be applied as a fall treatment to the stubble of harvested crops for the burndown of existing vegetation and preemergence control of labeled weeds the following spring in no-till and conservation tillage production systems. **LPI.A003** can be applied to the stubble of a harvested crop in no-till or conservation tillage production systems. **LPI.A003** can be applied to the stubble of a harvested crop in no-till or to the soil surface or

conservation tillage fields after harvest when the sustained soil temperature is 55 degrees F and falling at a soil depth of 4 inches. Apply after September 30 in those areas North of Interstate 90 and after October 15 in those areas North of Interstate 40. To obtain adequate weed control in all areas soils must have sustained temperature of 55 degrees F or lower. Applications to ridge till production systems must be made after the formation of ridges or beds.

If weeds are emerged at the time of application, utilize a tank mixture with a suitable burndown herbicide at labeled rates. Fall applied burndown treatments should be made with a minimum of 15 gallons per acre to achieve adequate coverage of the weeds being treated. Gallonage should be increased where weed density is high or heavy crop residue levels are present. When making burndown applications to emerged weeds, the addition of adjuvants such as crop oil concentrate (COC) or methylated seed oil (MSO) to the spray mixture can be used to enhance the burndown activity of the application. If weeds are present at time of **LPI.A003** application apply with appropriate burndown herbicides for improved control of existing weeds. Refer to product labels for use rates and instructions. For **LPI.A003** application rates refer to **RATE TABLE 1** for standard rate programs and **RATE TABLE 2** for reduced rate programs in glyphosate and glufosinate tolerant soybean systems.

Spring Applications:

Early Preplant

LPI.A003 may be applied up to 30-45 days prior to planting (Early Preplant) in no-till or minimum till cropping systems. For applications earlier than 30 days prior to planting, the high rate in the rate range may be needed for extended residual control. **LPI.A003** provides limited burndown of small weeds. **LPI.A003** applied early pre-plant must be applied in combination with the appropriate burndown herbicide such as glyphosate, glufosinate, gramoxone, and/or 2,4-D to achieve acceptable control of existing weeds during application. The addition of crop oil concentrate at 1 quart per acre or non-ionic surfactant at 0.25% will increase the burndown effectiveness of **LPI.A003**. For **LPI.A003** application rates refer to **RATE TABLE 1** for standard rate programs and **RATE TABLE 2** for reduced rate programs in glyphosate and glufosinate tolerant soybean systems.

Preplant Incorporated

LPI.A003 may be applied preplant incorporated prior to planting soybeans. **LPI.A003** may be applied alone or in combination with other preplant incorporated herbicides labeled for soybeans. Do not incorporate deeper than 2 inches. **LPI.A003** may be followed by labeled postemergence soybean herbicides for increased control of grass and broadleaf weeds. Always follow the most restrictive label when tank mixing. For **LPI.A003** application rates refer to **RATE TABLE 1** for standard rate programs and **RATE TABLE 2** for reduced rate programs in glyphosate and glufosinate tolerant soybean systems.

Preemergence

LPI.A003 can be applied from 30 days before planting and up to 3 days after planting, but before the crop seed germinate to prevent injury to emerging crop seedlings. **LPI.A003** applied after crop emergence will cause severe injury to the crop. Please refer to section 13 for more information regarding soybean tolerance **LPI.A003** can be applied alone or in combination with other labeled soybean herbicides for preemergence grass control. **LPI.A003** can be applied preemergence following the use of a preplant incorporated grass herbicide labeled for use on soybeans. If weeds are present at time of **LPI.A003** application apply with appropriate burndown herbicides for improved control of existing weeds. Refer to product labels for use rates and instructions. Properly closed planter seed furrows are required before **LPI.A003** application to avoid crop injury. For **LPI.A003** application rates refer to **RATE TABLE 1** for standard rate programs and **RATE TABLE 2** for reduced rate programs in glyphosate and glufosinate tolerant soybean systems.

LPI.A003 may be tank mixed with other products containing metribuzin as long as the total seasonal amount of (20 oz.) of metribuzin is not exceeded.

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.

Soybean Rate Table 1

LPI.A003 Use Rate Table Preemergence Applications			
Broadcast Rate	LPI.A003 Oz. by wt. (lb. a.i.) per acre*		
	Soil Texture**		
% Organic Matter***	Coarse	Medium	Fine
1.0 – 2.0%	12 (0.34) – 14 (0.39)	14 (0.39) – 16 (0.45)	16 (0.45) – 18 (0.51)
2.0 – 4.0%	14 (0.39) – 16 (0.45)	16 (0.45) – 18 (0.51)	18 (0.51) – 20 (0.56)

* Use the higher rate for suppression of grasses and sedges.
 ** Refer to the previous information on soil types under the SOIL CLASSIFICATION CHART.
 *** Do not apply to soils with less than 1% organic matter.
Adverse crop response can occur on soils with pH greater than 7.5. To reduce adverse crop response, use a maximum of 12 oz. of LPI.A003 on soils with pH greater than 7.5.

Soybean Rate Table 2

LPI.A003 Use Rate Table Fall, Early Pre-Plant, Pre-Plant Incorporated, Preemergence Conservation or Conventional Tillage (Reduced Rates for the Suppression of Weeds Listed to Reduce Early Season Weed Competition in Glyphosate and Glufosinate Tolerant Soybean System)			
Broadcast Rate	LPI.A003 Oz. by wt. (lb. a.i.) per acre*		
	Soil Texture**		
% Organic Matter***	Coarse	Medium	Fine
1.0 – 2.0%	8 (0.23)	8 (0.23) – 10 (0.28)	10 (0.28) – 12 (0.34)
2.0 – 4.0%	8 (0.23) – 10 (0.28)	10 (0.28) – 12 (0.34)	12 (0.34) – 14 (0.39)

* For fall applications use the higher rate for the appropriate soil texture and organic matter. Use the higher rate for suppression of grasses and sedges.
 ** Refer to the previous information on soil types under the SOIL CLASSIFICATION CHART.
 *** Do not apply to soils with less than 1% organic matter.
Adverse crop response can occur on soils with pH greater than 7.5. To reduce adverse crop response, use a maximum of 12 oz. of LPI.A003 on soils with pH greater than 7.5.

Reduced Rate LPI.A003 Programs Followed by Postemergence Herbicide Treatments (Rate Table 2):

LPI.A003 may be applied as an early preplant, preplant incorporated or preemergence treatment followed by labeled postemergence soybean herbicides for increased control of grass and broadleaf weeds. **LPI.A003** may also be followed by a postemergence application of a glyphosate product to glyphosate tolerant soybeans. Apply the specified application rate of **LPI.A003** for suppression of weeds in glyphosate tolerant soybeans, maintaining control with sequential applications of registered postemergence herbicides. Refer to the partner product labels for specific use directions, weed control claims, precautionary statements and restrictions.

Replanting Instructions:

If initial planting of soybeans fails to produce a stand due to adverse environmental conditions, only soybeans may be replanted in fields treated with **LPI.A003** when used according to directions in Soybean section. Do not retreat field with a second application of **LPI.A003** or crop injury may occur unless specifically allowed in other sections of the label. Do not replant treated fields with any crop at intervals that are inconsistent with the Rotational Crop Guidelines found on this label for **LPI.A003**. When specified tank mix combinations are used, consult the product

label for replanting and recropping instructions and observe the directions that are the most restrictive.

Precautions:

Do not apply **LPI.A003** after soybeans have emerged. Severe injury will occur when **LPI.A003** applications are made after soybean emergence.

Restrictions:

- Do not apply more than 20 ounces by weight per acre of **LPI.A003** per twelve month season. The twelve-month period is considered to begin upon the initial **LPI.A003** application.
- Do not apply to soils classified as sand, which have less than 1% organic matter.
- Do not apply **LPI.A003** to frozen soil.
- Do not incorporate deeper than 2 inches.
- Do not graze treated soybean or harvest for forage or hay.

SUGARCANE

LPI.A003 may be applied to sugarcane as a preemergence treatment at planting or lay-by timing.

LPI.A003 Use Rate Table			
Planting Time and Lay-by Applications			
Broadcast Rate	LPI.A003 Oz. by wt. (lb. a.i.) per acre*		
	Soil Texture**		
% Organic Matter	Coarse	Medium	Fine
1.0 – 2.0%	16 (0.45) – 20 (0.56)	20 (0.56) – 26 (0.73)	26 (0.73) – 30 (0.84)
2.0 – 4.0%	20 (0.56) – 26 (0.73)	26 (0.73) – 30 (0.84)	30 (0.84) – 33 (0.93)

* Use higher rates for soils with pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.
 ** Refer to the previous information on soil types under the SOIL CLASSIFICATION CHART.

Planting Time Application:

LPI.A003 can be applied to newly planted or ratoon sugarcane as a broadcast or banded preemergent soil applied treatment for the control of broadleaf weeds, grasses and sedges in sugarcane. Use the higher rate on clay soils and/or soils with organic matter content higher than 2 percent. Apply either by air in a minimum of 5 gallons of spray per acre or by ground equipment in a minimum of 10 gallons of spray per acre. **LPI.A003** may be applied with other herbicides registered for use in sugarcane.

For aerial application, and to assure that spray does not adversely affect adjacent sensitive non-target crops, apply **LPI.A003** at a minimum upwind distance of 400 feet from sensitive plants.

Restrictions:

- **Pre-harvest Interval (PHI):** Do not apply within 120 days before harvest.
- Do not apply more than 33 ounces (0.928 lbs. active) per acre of **LPI.A003** per twelve month season. The twelve month period is considered to begin upon the initial **LPI.A003** application.
- Do not graze treated sugarcane or harvest for forage or hay.
- Use of low-pressure, high-volume hand wand equipment is prohibited.

TOMATOES (Transplanted Only)

LPI.A003 Use Rate Table			
Preplant Incorporated Applications (PPI)			
Broadcast Rate	LPI.A003 Oz. by wt. (lb. a.i.) per acre		
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5	6 (0.17) – 8 (0.23)	8 (0.23) – 12 (0.34)	8 (0.23) – 16 (0.45)
1.5-3	8 (0.23) – 16 (0.45)	16 (0.45)	16 (0.45) – 20 (0.56)
>3	16 (0.45) – 20 (0.56)	20 (0.56)	20 (0.56)
<ul style="list-style-type: none"> • Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories • Use higher rates for soils with pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range. 			

Preplant Incorporated (PPI):

LPI.A003 may be applied preplant incorporated (1" - 2" deep) as a broadcast application. Applications must be made prior to transplanting.

Weeds Controlled:

When applied according to directions, **LPI.A003** will provide control of:

Galinsoga	Lambsquarters, common
Nightshade, eastern black	Pigweed, redroot
Morningglory, ivyleaf	Waterhemp, common
Nutsedge, yellow	Waterhemp, tall

Precautions:

These Crop Specific Use directions are based upon the interactive effects of **LPI.A003** (sulfentrazone + metribuzin) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under Application Instructions, consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on **LPI.A003**.

Restrictions:

- Do not apply more than 20 ounces (0.56 lb a.i) of **LPI.A003** per acre per twelve-month period. The twelve-month period is considered to begin upon the initial **LPI.A003** application.
- Do not apply more than 0.375 lb a.i of sulfentrazone or 1.0 lb a.i of metribuzin per cropping season.
- Do not apply by air.
- Do not make postemergence applications of other herbicides containing metribuzin to transplanted tomatoes within 14 days of applying **LPI.A003**.
- **Do not use on soils classified as sand, which have less than 1% organic matter.**

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store product in original container only, away from other pesticides, fertilizer, food or feed. Store in a cool, dry place and avoid excess heat.

In Case of Spill: In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills. Call CHEMTREC (Transportation and spills): (800) 424-9300. **To Confine Spill:** To confine spill: If liquid, dike surrounding area or absorb with sand, cat litter or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

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

Nonrefillable container ≤ 50 Pounds: Nonrefillable container. Do not reuse or refill this container. Triple rinse or pressure 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 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. 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. Offer for recycling if available.

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For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC – 1-800-424-9300.

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.

[LPI.A003] is a trademark of Loveland Products, Inc.
Authority® and MTZ® are registered trademarks of FMC Corporation.

{LANGUAGE ON LABEL AFFIXED TO CONTAINER}

LPI.A003™

Active Ingredient:	(% by weight)
Sulfentrazone*	18.0%
Metribuzin**	27.0%
Other Ingredients	55.0%
Total	100.0%

Contains 0.45 lbs. of active ingredient per pound: 0.18 pounds sulfentrazone and 0.27 pounds metribuzin.

* N-[2,4 dichloro-5-[4-(difluoromethyl)-4,5-dihydro-3-methyl-5-oxo-1H-1,2,4-triazol-1-yl]phenyl]methanesulfonamide

** 4-amino-6-(1,1-dimethylethyl)-3-(methylthio)-1,2,4-triazin-5(4H)-one

KEEP OUT OF REACH OF CHILDREN

CAUTION

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	
If inhaled	<ul style="list-style-type: none"> ● Move person to fresh air. ● If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. ● Call a poison control center or doctor for treatment advice.
If on skin or clothing:	<ul style="list-style-type: none"> ● Take off contaminated clothing. ● Rinse skin immediately with plenty of water for 15-20 minutes. ● Call a poison control center or doctor for treatment advice.
If in eyes:	<ul style="list-style-type: none"> ● Hold eye open and rinse slowly and gently with water for 15-20 minutes. ● Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. ● <u>Call a poison control center or doctor for treatment advice.</u>
If swallowed	<ul style="list-style-type: none"> ● Call a poison control center or doctor immediately for treatment advice. ● Have person sip a glass of water if able to swallow. ● Do not induce vomiting unless told to do so by the poison control center or doctor. ● Do not give anything by mouth to an unconscious person.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact SafetyCall at 1-844-685-9173 for emergency medical treatment information.	

**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
CAUTION**

Causes moderate eye irritation. Harmful if inhaled, swallowed, or absorbed through the skin. Avoid breathing vapor or spray mist. Avoid contact with skin, eyes, or clothing. 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.

ENVIRONMENTAL HAZARDS: This pesticide is toxic to fish and marine/estuarine invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to terrestrial and aquatic plants in neighboring areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

Groundwater Advisory: This product contains chemicals known to leach through soil into groundwater under certain conditions as a result of label use. Use of this product in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Do not use on coarse soils classified as sand, which have less than 1.0% organic matter.

Surface Water Advisory: LPI.A003 can contaminate surface water through spray drift. Under some conditions, LPI.A003 may also have a high potential for runoff into surface water (primarily via dissolution in runoff water), for several to many months post-application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlying extremely shallow groundwater areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filler strips, and areas overlying tile drainage systems that drain to surface waters.

Physical/Chemical Hazards:

Do not use or store near heat or open flame.

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

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

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