



U.S. ENVIRONMENTAL PROTECTION AGENCY

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

EPA Reg. Number:

34704-1139

Date of Issuance:

4/30/20

NOTICE OF PESTICIDE:

Registration  
 Reregistration  
(under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

LPI Trinexapac-ethyl

Name and Address of Registrant (include ZIP Code):

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 (FIFRA).

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 unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.
2. Submit one copy of the revised final printed label for the record before you release the product for shipment.

*Continued on page 2*

Signature of Approving Official:

Mindy Ondish, Product Manager 23  
Herbicide Branch, Registration Division (7505P)

Date:

4/30/20

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 FIFRA 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 these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. 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 CSF:

- Basic CSF dated 12/6/2019

The alternate brand name, "**Munition 2 EC**" is added to the product record.

If you have any questions, please contact Margaret Hathaway by phone at 703-505-5076, or via email at [hathaway.margaret@epa.gov](mailto:hathaway.margaret@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}

TRINEXAPAC-ETHYL	GROUP	23	HERBICIDE
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# LPI Trinexapac-ethyl

[Alternate Brand Name: Munition 2 EC]

[For growth management of grasses grown for seed, wheat, triticale, barley, oats, rye, rice, and sugarcane]

ACTIVE INGREDIENT:	(% by weight)
Trinexapac-ethyl*.....	25.5%
OTHER INGREDIENTS: .....	74.5%
TOTAL .....	100.0%

\*CAS No. 95266-40-3

LPI TRINEXAPAC-ETHYL is an emulsifiable concentrate containing 2.1 pounds of active ingredient per gallon.

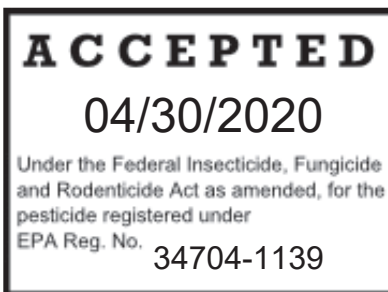
**KEEP OUT OF REACH OF CHILDREN**  
**CAUTION**

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. 34704-1139  
EPA Est. No.  
Net Weight:  
[EPA approved date]

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



## {LANGUAGE INSIDE BOOKLET}

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>
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>	

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

#### CAUTION

Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. 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)

##### Applicators and other handlers must wear:

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

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

#### ENGINEERING CONTROL STATEMENTS

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

#### USER SAFETY RECOMMENDATIONS

##### Users should:

- Wash hands thoroughly with soap and water after handling and 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. Wash contaminated clothing before reuse.
- 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

For terrestrial uses: Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high-water mark. Do not contaminate water when disposing of equipment washwater or rinsate. Do not apply when weather conditions favor drift from treated areas. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. See the **Spray Drift Management** section for further instructions on avoiding drift.

## 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.

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 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:

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

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

## NOTICE

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

### Mandatory Spray Drift Restrictions

#### Ground Applications

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy.
- For all applications, applicators are required to use a medium or coarser spray droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

#### Boom-less Ground Applications:

- Applicators are required to use a medium or coarser droplet size (ASABE S572.1) for all applications.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

### Spray Drift Advisories

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

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

#### Controlling Droplet Size - Ground Boom

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
  - Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
  - Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.
- **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.
  - **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 target area.
  - **TEMPERATURE AND HUMIDITY**  
When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.
  - **TEMPERATURE INVERSIONS**  
Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.
  - **WIND**  
Drift potential generally increases with wind speed. **AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.** Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.
  - **Boom-less Ground Applications:**  
Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.
  - **Handheld Technology Applications:**  
Take precautions to minimize spray drift.

## RESISTANCE MANAGEMENT

For resistance management, **LPI TRINEXAPAC-ETHYL** is a Group 23 herbicide based on the mode of action classification system of the Weed Science Society of America. Any weed population may contain or develop plants naturally resistant to **LPI TRINEXAPAC-ETHYL** and other Group 23 herbicides. Weeds resistant to Group 23 herbicides may be effectively managed utilizing another herbicide alone or in mixtures from a different Group and/or by using cultural or mechanical practices. However, a herbicide mode of action classification by itself may not adequately address specific weeds that are resistant to specific herbicides. Consult your local company representative, state cooperative extension service, professional consultants or other qualified authorities to determine appropriate actions for treating specific resistant weeds.

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

- Rotate the use of **LPI TRINEXAPAC-ETHYL** or other Group 23 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 with herbicides from a different group if such use is permitted; where information on resistance in target weed 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.
- 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 for example 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.
- For further information or to report suspected resistance, contact a Loveland Products, Inc. representative.

## PRODUCT INFORMATION

All applications must be made according to the use directions that follow.

**LPI TRINEXAPAC-ETHYL** is a plant growth regulator (PGR) which acts by inhibiting the production of gibberellic acid. It shortens the internodes on grasses grown for seed and cereals which results in a reduction in lodging. It also acts as a PGR in sugarcane by shortening the internodes which improves seed piece production and when used prior to harvest, increases and/or maintains the sugar content for an extended harvest window. **LPI TRINEXAPAC-ETHYL** is rapidly absorbed by the foliage. The PGR effects do not occur through soil uptake.

## USE INSTRUCTIONS

**Application:** Thorough coverage is necessary to provide good activity. Make up no more spray solution than is needed for application. Avoid spray overlap, as crop injury may occur.

**Adjuvants:** When an adjuvant is to be used with this product, the use of an adjuvant that meets the standards of the Chemical Producers and Distributors Association (CPDA) adjuvant certification program is recommended.

**Efficacy:** The activity and performance of **LPI TRINEXAPAC-ETHYL** is primarily affected by: (1) environmental conditions, (2) crop management and cultural practices that affect crop growth and vigor, (3) fertility level, (4) moisture availability, (5) plant vigor, and (6) crop growth stage. **LPI TRINEXAPAC-ETHYL** acts by inhibiting the production of gibberellic acid.

### Plant-back Interval (PBI):

Crop	Days to Plantback After the Last Application of LPI TRINEXAPAC-ETHYL
Wheat Barley Triticale Oats Rye Rice Grasses Grown for Seed Sugarcane	0 days
All Other Food or Feed Crops	30 days

**Crop Tolerance:** Plant tolerance has been found acceptable for all crops on the label, however, not all possible tank mix combinations have been tested under all conditions nor have all varieties been tested under all conditions. When possible, it is recommended to test the combinations on a small portion of the crop to ensure a phytotoxic response will not occur as a result of application.

**SPRAY DRIFT MANAGEMENT:** Spray equipment and weather affect spray drift. Consider all factors when making application decisions. Where states or tribes have more stringent regulations, they must be observed. AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR AND THE GROWER. To reduce the potential for drift, the application equipment must be set to apply medium to coarse droplets (i.e., ASABE Standard 572.1) with corresponding spray pressure. Use high flow rate nozzles to apply the highest practical spray volume. With most nozzle types, narrower spray angles produce larger droplets. Follow the nozzle manufacturer's directions on pressure, orientation, spray volume, etc., in order to minimize drift and optimize coverage and control.

**Wind:**

Avoid making applications when spray particles may be carried by air currents to nontarget areas. Do not spray if wind is gusty, below 2 mph, or in excess of 10 mph and moving in the direction of adjacent sensitive areas. Local terrain may influence wind patterns; the applicator must be familiar with local conditions and understand how they may impact spray drift.

**Sensitive Areas:**

Sensitive areas to this product are defined as bodies of water (ponds, lakes, rivers, streams, and wetlands), known habitats of threatened or endangered species and nonlabelled agricultural crop areas. Applicators must take all precautions necessary to keep spray drift from reaching sensitive areas.

**Temperature Inversion:**

A surface temperature inversion (i.e., increasing temperature with increasing altitude) greatly increases the potential for drift. Presence of ground fog is a good indicator of a surface temperature inversion. Do not apply during temperature inversions. Always make applications when there is some air movement to determine the direction and distance of possible spray drift.

**Equipment:**

All aerial and ground equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

*Additional requirements for aerial applications:*

The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.

Release spray at the lowest height consistent with efficacy and flight safety.

When applications are made with a crosswind, the swath will be displaced downwind. The applicator must compensate for this by adjusting the path of the aircraft upwind.

*Additional requirements for ground applications:*

Do not apply with a nozzle height greater than 4 feet above the crop canopy.

## **MIXING AND APPLICATION METHODS**

### **Spray Equipment**

#### **Nozzles**

- Equip sprayers with nozzles that provide accurate and uniform application.
- Nozzles should be the same size and uniformly spaced across the boom.
- Calibrate sprayer before use.
- It is suggested that screens be used to protect the pump and to prevent nozzles from clogging.
- Screens placed on suction side of pump should be *16-mesh or coarser*.
- Do not place a screen in the recirculation line.
- Use 50-mesh or coarser screens between the pump and boom, and where required, at the nozzles.
- Check nozzle manufacturer's recommendations.

#### **Pump**

- Use a pump with capacity to:



- 1) maintain 35-40 psi at nozzles
  - 2) provide sufficient agitation in tank to keep mixture in suspension - this requires recirculation of 10% of tank volume per minute.
- Use a jet agitator or liquid sparge tube for agitation.
  - Do not use air sparge.

For more information on spray equipment and calibration, consult sprayer manufacturers' and state recommendations. For specific local directions and spray schedules, consult the current state agricultural recommendations.

#### **Mixing Instructions**

- Prepare no more spray mixture than is required for the immediate operation.
- Thoroughly clean spray equipment before using this product.
- Agitate the spray solution before and during application.
- Rinse spray tank thoroughly with clean water after each day's use and dispose of pesticide rinsate by application to an already treated area.
- Do not allow spray mixture to stand overnight or for prolonged periods of time.

#### **LPI TRINEXAPAC-ETHYL Alone (no tank mix):**

- Add ½-2/3 of the required amount of water to the spray or mixing tank.
- With the agitator running, add the **LPI TRINEXAPAC-ETHYL** to the tank.
- Continue agitation while adding the remainder of the water.
- Mix in enough water (10-20 gal/A) to thoroughly and uniformly cover crop.
- Begin application of the spray solution after the **LPI TRINEXAPAC-ETHYL** has completely dispersed into the mix water.
- Maintain agitation until all of the mixture has been sprayed.

#### **LPI TRINEXAPAC-ETHYL + Tank Mixtures:**

- **LPI TRINEXAPAC-ETHYL** is usually compatible with all tank-mix partners listed on this label.
- To determine the physical compatibility of **LPI TRINEXAPAC-ETHYL** with other products, use a jar test. Using a quart jar, add the proportionate amounts of the products to 1 quart of water. Add wettable powders and water dispersible granular products first, then liquid flowables, and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 5 minutes. If the combination remains mixed or can be remixed readily, it is physically compatible. Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank.
- 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.

#### **Mixing in the Spray Tank**

- Add ½-2/3 of the required amount of water to the spray or mixing tank.
- With the agitator running, add the tank mix partner(s) into the tank in the same order as described above.
- Allow the material to completely dissolve and disperse into the mix water. Continue agitation while adding the remainder of the water and the **LPI TRINEXAPAC-ETHYL** to the spray tank.
- Allow the **LPI TRINEXAPAC-ETHYL** to completely disperse.
- Spray the mixture with the agitator running.

#### **LPI TRINEXAPAC-ETHYL + Propiconazole or Azoxystrobin/Propiconazole**

- Add 1/2 -2/3 of the required amount of water to the spray tank.
- While agitating, add **LPI TRINEXAPAC-ETHYL** followed by propiconazole or azoxystrobin/propiconazole.
- Continue agitation while adding the remainder of the water.
- Maintain agitation until all of the mixture has been applied.

## **APPLICATION INSTRUCTIONS**

**LPI TRINEXAPAC-ETHYL** may be applied with all types of spray equipment commonly used for making ground and aerial applications. Proper adjustments and calibration of spraying equipment to give good coverage is essential for good growth regulator effects.

#### **Ground Application:**

- Apply in a minimum of 10 gallons of water per acre, unless specified otherwise.
- Do not apply through any ultra-low volume (ULV) spray system.
- Thorough coverage is necessary for good growth regulator effects.

#### **Aerial Application:**

- Thorough coverage is necessary to provide a good, uniform effect.
- A minimum of 2 gallons of diluent per acre can be used in grasses grown for seed, cereals and sugarcane.
- Avoid application under conditions when uniform coverage cannot be obtained or when excessive spray drift may occur.
- Do not apply directly to humans or animals.
- Do not apply through any ultra-low volume (ULV) spray system.

#### **Application Through Irrigation Systems (Chemigation)**

- Apply this product only through center pivot, [solid set], [hand move], [or moving wheel irrigation systems]. Do not apply this product through any other type of irrigation system.
- Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
- Apply in 0.1 - 0.25 inches/A of water. Excessive water may reduce efficacy.
- If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts.
- Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system, unless the pesticide label-prescribed safety devices for public water systems are in place.
- A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

**Note:** Do not inject **LPI TRINEXAPAC-ETHYL** at full strength or deterioration of valves and seals may occur. Use a dilution ratio of at least 10 parts water to 1-part **LPI TRINEXAPAC-ETHYL**. **LPI TRINEXAPAC-ETHYL** is corrosive to many seal materials. Leather seals are best. EPDM or silicone rubber seals can be used, but should be replaced once a year. Do not use Viton<sup>®</sup>, Buna-N, Neoprene, or PVC seals.

#### **Operating Instructions**

1. The system must contain a functional check-valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quickclosing check-valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.

#### **Center Pivot Irrigation Equipment**

**Notes:** (1) Use only with drive systems which provide uniform water distribution. (2) Do not use end guns when chemigating **LPI TRINEXAPAC-ETHYL** through center pivot systems because of non-uniform application.

- Determine the size of the area to be treated.
- Determine the time required to apply 1/8 - 1/2 inch of water over the area to be treated when the system and injection equipment are operated at normal pressures as recommended by the equipment manufacturer. When applying **LPI TRINEXAPAC-ETHYL** through irrigation equipment use the lowest obtainable water volume while maintaining uniform distribution. Run the system at 80-95% of the manufacturer's rated capacity.
- Using water, determine the injection pump output when operated at normal line pressure.
- Determine the amount of **LPI TRINEXAPAC-ETHYL** required to treat the area covered by the irrigation system.
- Add the required amount of **LPI TRINEXAPAC-ETHYL** and sufficient water to meet the injection time requirements to the solution tank.
- Make sure the system is fully charged with water before starting injection of the **LPI TRINEXAPAC-ETHYL** solution. Time the injection to last at least as long as it takes to bring the system to full pressure.
- Maintain constant solution tank agitation during the injection period.
- Continue to operate the system until the **LPI TRINEXAPAC-ETHYL** solution has cleared the sprinkler head.

#### **Solid Set, Hand Move, and Moving Wheel Irrigation Equipment**

**Notes:** (1) Use only with drive systems which provide uniform water distribution. (2) Do not use end guns when chemigating **LPI TRINEXAPAC-ETHYL** through center pivot systems because of non-uniform application.

- Determine the acreage covered by the sprinklers.
- Fill injector solution tank with water and adjust flow rate to use the contents over a 20- to 30-minute interval. When applying **LPI TRINEXAPAC-ETHYL** through irrigation equipment use the lowest obtainable water volume while maintaining uniform distribution.
- Determine the amount of **LPI TRINEXAPAC-ETHYL** required to treat the area covered by the irrigation system.
- Add the required amount of **LPI TRINEXAPAC-ETHYL** into the same quantity of water used to calibrate the injection period.
- Operate the system at the same pressure and time interval established during the calibration.
- Stop injection equipment after treatment is completed. Continue to operate the system until the **LPI TRINEXAPAC-ETHYL** solution has cleared the last sprinkler head.

#### **SPECIFIC INSTRUCTIONS FOR PUBLIC WATER SYSTEMS**

1. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back-flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
3. The pesticide injection pipeline must contain a functional, automatic, quickclosing check valve to prevent the flow of fluid back toward the injection pump.
4. The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.

## CROP USE DIRECTIONS

Crop	Fl oz/A (lbs ai/A)	Application
For growth and lodging management and yield protection in cereals.		
<b>Cereals</b> Wheat Winter Spring Durum  Barley Winter Spring  Oats  Rye  Triticale	5 - 7 (0.08 – 0.11)	<p>Single application: Apply <b>LPI TRINEXAPAC-ETHYL</b> from Feekes growth stage 4 (pseudostem erection) through Feekes growth stage 7 (node formation). Apply before Feekes 8 (when the last leaf is visible).</p> <p>[Optional language: Split application: Make the first application at Feekes 4-5 and a second application at Feekes 7. Apply no more than 7 fl oz/A total.]</p> <p>[Optional language: Split application in barley: Make the first application at Feekes 4-6 and a second application at Feekes 7-8.]</p> <p>[Optional language: For improved root development, apply 3 – 7 fl oz at Feekes 2-5 (tillers formed to leaf sheath strongly erect)].</p> <p>For further descriptions of Feekes (and Zadoks) growth stages, see table at end of label.</p> <p>Use the higher rate when 1) varieties are prone to lodging, or 2) the crop is intensively managed.</p>
<b>Application:</b> For best coverage and uptake, use a minimum of 10 gallons of water/acre. <b>LPI TRINEXAPAC-ETHYL</b> may be mixed in a spray solution containing up to 50% liquid nitrogen fertilizer.		
<b>Specific Use Restrictions:</b> <ol style="list-style-type: none"> <li>1) Do not apply if crop is stressed by drought, disease, or temperatures.</li> <li>2) Do not apply more than 7 fl oz (0.11 lb ai) <b>LPI TRINEXAPAC-ETHYL</b>/A/year.</li> <li>3) Do not make more than 2 applications per year.</li> <li>4) <b>LPI TRINEXAPAC-ETHYL</b> may be applied until 45 days prior to harvest (45-day PHI).</li> </ol>		

Crop	Fl oz/A (lbs ai/A)	Application
For yield protection and lodging prevention in grasses grown for seed.		
<b>Grasses</b> (grown for seed)	5.5 – 30.5 (0.09 – 0.5)	<p>Apply as a broadcast, foliar spray to actively growing grass.</p> <p>For a single application, apply before or during stem elongation stage of development (Zadoks 30-37 or Feekes 5-8).</p> <p>Use the high rate on heavy, lush stands. Use the lower rate range on short varieties, when conditions are less favorable for lodging, or on older stands of grass.</p> <p><b>NOTE:</b> Although this product is effective at any time in this growth stage the BEST timing is early (Zadoks growth stage 32 or Feekes 7) when the second node on the main stem is detectable.</p>
	Split application 2.75 - 15 (0.04 – 0.24)	<p>For a split application, apply the first application before or during stem elongation stage of development (Zadoks 30-37 or Feekes 5-8) followed by a second application 7- 10 days later.</p>
<b>Specific Use Restrictions:</b> <ol style="list-style-type: none"> <li>1) Do not apply more than 30.5 fl oz (0.5 lb ai) <b>LPI TRINEXAPAC-ETHYL/A/year.</b></li> <li>2) Do not make more than 2 applications per year.</li> <li>3) May be applied up to 35 days before harvest.</li> <li>4) Do not graze or feed forage 49 days after last application.</li> </ol>		

Crop	Fl oz/A (lbs ai/A)	Application															
For yield protection and lodging prevention in rice																	
<b>Rice</b>  <b>Including wild rice</b>	1.7 – 2.75 (0.027 – 0.045)	<p>Apply <b>LPI TRINEXAPAC-ETHYL</b> one time as a broadcast spray to actively growing rice at the stages specified in the table below. <b>LPI TRINEXAPAC-ETHYL</b> may be applied via aerial or ground boom application (depending on when flooding takes place).</p> <p>Apply <b>LPI TRINEXAPAC-ETHYL</b> (one application only) within the following growth stages.</p> <table border="1" data-bbox="776 474 1370 869"> <thead> <tr> <th data-bbox="776 474 1062 606">Growth Stage</th> <th data-bbox="1062 474 1192 606">BBCH code</th> <th data-bbox="1192 474 1370 606">LPI TRINEXAPAC-ETHYL Treatment</th> </tr> </thead> <tbody> <tr> <td data-bbox="776 606 1062 638">Fully tillered</td> <td data-bbox="1062 606 1192 638">29</td> <td data-bbox="1192 606 1370 638">Yes (earliest)</td> </tr> <tr> <td data-bbox="776 638 1062 701">Panicle Initiation (green ring)</td> <td data-bbox="1062 638 1192 701">30</td> <td data-bbox="1192 638 1370 701">Yes-Best</td> </tr> <tr> <td data-bbox="776 701 1062 764">Panicle Formation (panicle 1-2mm)</td> <td data-bbox="1062 701 1192 764">32</td> <td data-bbox="1192 701 1370 764">Yes (Latest)</td> </tr> <tr> <td data-bbox="776 764 1062 869">Panicle Differentiation (jointing)/ ½ - ¾ -inch internode elongation</td> <td data-bbox="1062 764 1192 869">34</td> <td data-bbox="1192 764 1370 869">NO-do not apply</td> </tr> </tbody> </table> <p>[Optional language: Use the high rate on heavy, lush stands and varieties prone to lodging. Use the lower rate range when conditions are less favorable for lodging.]</p> <p>NOTE: Delayed heading has been noted when <b>LPI TRINEXAPAC-ETHYL</b> was applied later than panicle differentiation. As rice grows quickly, do not apply once internode is more than ½ - ¾ inch in length.</p>	Growth Stage	BBCH code	LPI TRINEXAPAC-ETHYL Treatment	Fully tillered	29	Yes (earliest)	Panicle Initiation (green ring)	30	Yes-Best	Panicle Formation (panicle 1-2mm)	32	Yes (Latest)	Panicle Differentiation (jointing)/ ½ - ¾ -inch internode elongation	34	NO-do not apply
Growth Stage	BBCH code	LPI TRINEXAPAC-ETHYL Treatment															
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Panicle Differentiation (jointing)/ ½ - ¾ -inch internode elongation	34	NO-do not apply															
<p><b>Specific Use Restrictions:</b></p> <ol style="list-style-type: none"> <li>1) Do not apply more than 2.75 fl oz (0.045 lb ai/A) <b>LPI TRINEXAPAC-ETHYL</b>/A/year.</li> <li>2) Do not make more than 1 application per year.</li> <li>3) Do not apply to ratoon crop.</li> <li>4) Do not release flood water for 5 days after application.</li> <li>5) Do not apply after 50 days pre-harvest (50-day PHI).</li> </ol>																	

Crop	Fl oz/A (lbs ai/A)	Application
For ripening in sugarcane		
Sugarcane	11 - 19 (0.18 – 0.31)	Apply <b>LPI TRINEXAPAC-ETHYL</b> 28-60 days prior to harvest to increase sugar content and/or extend harvest window.
For internode shortening for seed piece production in sugarcane		
Sugarcane	4 - 12 (0.07 – 0.2)	Make a minimum of two split applications of <b>LPI TRINEXAPAC-ETHYL</b> . Make first application of 4-12 fl oz/A when 6 fully developed full size leaves have appeared. Note the bottom leaf should be feeding internodes above the soil surface. Make a second application of 4-12 fl oz/A when 6 additional fully developed full size leaves have appeared. <b>The total amount applied per acre/crop/season must not exceed 19 fl oz.</b>
<b>Specific Use Restrictions:</b>		
<ol style="list-style-type: none"> <li>1) When applied as a ripener, <b>LPI TRINEXAPAC-ETHYL</b> may be applied until 28 days prior to harvest (28-day PHI).</li> <li>2) Do not apply more than 19 fl oz (0.31 lb ai) <b>LPI TRINEXAPAC-ETHYL/A/crop/year</b>.</li> <li>3) Do not make more than 3 applications per year.</li> <li>4) Do not apply to cane under stress from lack of water, poor fertilization, abnormal temperatures, or disease.</li> </ol>		
<b>Specific Use Precautions:</b>		
<ol style="list-style-type: none"> <li>1) Results may vary according to the variety.</li> <li>2) Crop tolerance: This product will not negatively impact sugarcane at the rates, timings, and varieties tested. Some varieties may be more sensitive and exhibit symptoms such as stunting. Under normal agricultural conditions, the affected plants will resume growth.</li> </ol>		

**Conversion Table**

Fl oz/A	Lb ai/A
1.7	0.027
2.75	0.045
4	0.07
5	0.08
5.5	0.09
7	0.11
11	0.18
12	0.2
15	0.24
19	0.31
30.5	0.5

**Explanation of Growth Stages for Gramineous Crops**

Feekes	Zadoks	Description
2	21	Begin Tillering
3	26	Tillers formed
4	29	Leaf sheaths erect
5	30	Leaf sheaths strongly erect
6	31	First node visible
7	32	Second node visible
8	37	Flag leaf just visible

## 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:

**[Nonrefillable container.** Do not reuse or refill this container. If empty: Offer for recycling if available or discard in a sanitary landfill. If partly filled: Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.]

**[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.]

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## 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. 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.

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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.

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**{LANGUAGE ON LABEL AFFIXED TO CONTAINER}**

TRINEXAPAC-ETHYL GROUP 23 HERBICIDE

**LPI TRINEXAPAC-ETHYL**

**[Alternate Brand Name: Munition 2 EC]**

[For growth management of grasses grown for seed, wheat, triticale, barley, oats, rye, rice, and sugarcane]

<b>ACTIVE INGREDIENT:</b>	<b>(% by weight)</b>
Trinexapac-ethyl*.....	25.5%
<b>OTHER INGREDIENTS:</b> .....	74.5%
<b>TOTAL</b> .....	100.0%

\*CAS No. 95266-40-3

LPI TRINEXAPAC-ETHYL is an emulsifiable concentrate containing 2.1 pounds of active ingredient per gallon.

**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	
<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>
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>	

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION**

Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

**ENVIRONMENTAL HAZARDS:** For terrestrial uses: Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high-water mark. Do not contaminate water when disposing of equipment washwater or rinsate. Do not apply when weather conditions favor drift from treated areas. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. See the Spray Drift Management section for further instructions on avoiding drift.

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Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.]

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

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

EPA Reg. No. 34704-1139

EPA Est. No.

Net Weight:

[EPA approved date]

MANUFACTURED FOR:

LOVELAND PRODUCTS, INC.

P.O. BOX 1286

GREELEY, COLORADO 80632-1286