

# LPE-94 10% Aqueous

## GROWTH REGULATOR

*(Alternate Brand Names: NPI 105 for Grapes, NPI 116 for Tomatoes, NPI 119 for Cranberries, SigniVine™, SigniRipe™, Signifies™)*

- LPE is a growth regulator that enhances fruit quality, ripening and shelf life of select fruits, flowers and vegetables.
- With Signifies™ Technology.
- Natural Quality Enhancer™
- Fresh Focus™

**Active Ingredient:**

Lysophosphatidylethanolamine (LPE) .....	10%
<b>Other Ingredients:</b> .....	<u>90%</u>
<b>Total</b> .....	100%

Contains 0.835 lbs. LPE per gallon

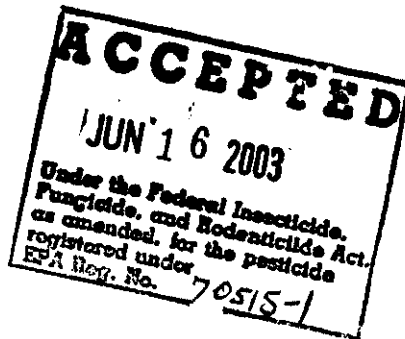
### KEEP OUT OF REACH OF CHILDREN CAUTION

See side (back) panel for additional precautionary statements.

EPA Reg. No.: EPA Reg. No. 70515-1  
 EPA Est. No.: XXXXX-XX-X

Manufactured for: Nutra-Park Inc.  
 3225 Deming Way, Suite 140  
 Middleton, WI 53562

Net Contents: 1 Liter (33.9 oz)



<b>FIRST AID</b>	
<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 – 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>HOT LINE NUMBER</b>	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-858-7378 for emergency medical treatment information.	

**PRECAUTIONARY STATEMENTS**

**Hazard to humans and domestic animals: CAUTION.** 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.

**PERSONAL PROTECTIVE EQUIPMENT (PPE):** Applicators and other handlers must wear long-sleeved shirt and long pants, waterproof gloves, and shoes plus socks. Follow manufacturer's instructions for cleaning / maintaining PPE. Keep and wash PPE separately from other laundry.

**User Safety Requirements:** Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**Environmental Hazards:** Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean highwater mark. Do not contaminate water when cleaning equipment or disposing of equipment washwater.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation. 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.

**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 intervals (REI). 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 of 12 hours.

PPE requirement for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water, is coveralls, waterproof gloves and shoes plus socks.

### Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are **not** within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Keep unprotected persons out of treated areas until sprays have dried or dusts have settled. For post-harvest treated commodities, only protected persons should handle until dip or spray has dried.

#### General:

LPE is a biochemical growth regulator that enhances fruit quality, ripening and shelf life of select fruits, flowers and vegetables. LPE application does not enhance respiration, like other ripening agents. LPE is also known to reduce senescence by inhibiting some of enzymes involved in membrane breakdown. For these reasons, LPE enhances and promotes shelf life. When applied to physiologically mature fruit (at breaker stage, i.e. early stage of ripening), it stimulates and promotes ripening.

READ ENTIRE LABEL BEFORE USING THIS PRODUCT.

#### Mixing Instructions:

Shake well (1-3 minutes) before mixing. Dilute product with water per Table 1 below to achieve recommended application rate for intended use. Add half the water to tank, then add LPE-94 10% Aqueous. Add remaining water and mix thoroughly.

Table 1

Parts Per Million (PPM)	Amount of LPE-94 10% Aqueous to make 100 gallons of spray solution
25	3.2 fl. oz.
50	6.4 fl. oz.
100	12.8 fl. oz.
200	25.6 fl. oz.

#### Pre-Harvest Application Directions:

Apply LPE-94 10% Aqueous in sufficient water to wet fruit uniformly, using conventional ground or aerial application equipment. For better coverage, use a sticker deposition agent. Contact your Nutra-Park Representative for guidance on surfactant or adjuvant selection and use. Do not use with organo-silicone surfactants and use antifoam agents sparingly.

Follow directions for specific crop listed below:

PRE HARVEST APPLICATION				
Crop				
		Rate in oz/acre	Use	
Special Instructions				
<b>Fruiting Vegetables</b>				
<b>Eggplants</b>		8 - 30	<ul style="list-style-type: none"> <li>• Increased early marketable yield</li> <li>• Accelerated fruit ripening</li> <li>• Uniform color development</li> <li>• Improved fruit quality</li> </ul>	
<b>Tomatoes</b>	Vine Ripe	Field	8 - 30	<ul style="list-style-type: none"> <li>• Increased early marketable yield</li> <li>• Uniform color development</li> <li>• Improved fruit firmness</li> </ul>
<b>Tomatoes</b>	Vine Ripe	Greenhouse	2 - 4	<ul style="list-style-type: none"> <li>• Increased early marketable yield</li> <li>• Uniform color development</li> <li>• Improved fruit firmness</li> </ul>
<b>Tomatoes</b>		Processing	15 - 45	<ul style="list-style-type: none"> <li>• Increased early marketable yield</li> <li>• Uniform color development</li> <li>• Improved fruit firmness</li> </ul>
<b>Peppers</b>		Red	8 - 30	<ul style="list-style-type: none"> <li>• Accelerated fruit ripening</li> <li>• Increased early marketable yield</li> <li>• Uniform color development</li> <li>• Improved fruit quality</li> </ul>
		Green	8 - 30	<ul style="list-style-type: none"> <li>• Accelerated fruit ripening</li> <li>• Increased early marketable yield</li> <li>• Improved fruit quality</li> </ul>

<b>Pimentos</b>	8 – 30	<ul style="list-style-type: none"> <li>• Increased early marketable yield</li> <li>• Accelerated fruit ripening</li> <li>• Uniform color development</li> <li>• Improved fruit quality</li> </ul>	<ul style="list-style-type: none"> <li>• Apply approximately two weeks prior to harvest.</li> </ul>
<b>Cucurbits</b>			
<b>Melons Squash Pumpkins</b>	15 - 45	<ul style="list-style-type: none"> <li>• Increased early marketable yield</li> <li>• Accelerated fruit ripening</li> <li>• Improved fruit quality</li> </ul>	<ul style="list-style-type: none"> <li>• Apply approximately two weeks prior to harvest.</li> </ul>
<b>Berries/Small Fruits</b>			
<b>Raspberries Boysenberries Blackberries Blueberries</b>	8 – 30	<ul style="list-style-type: none"> <li>• Increased early marketable yield</li> <li>• Accelerated fruit ripening</li> <li>• Uniform color development</li> <li>• Improved fruit quality</li> </ul>	<ul style="list-style-type: none"> <li>• Apply approximately two weeks prior to harvest.</li> </ul>
<b>Cranberries</b>	8 – 30	<ul style="list-style-type: none"> <li>• Increased early marketable yield</li> <li>• Accelerated fruit ripening</li> <li>• Uniform color development</li> <li>• Improved fruit quality</li> </ul>	<ul style="list-style-type: none"> <li>• Apply approximately two weeks prior to harvest. Can be applied through irrigation systems. Consult your Nutra-Park representative for use guidance.</li> </ul>
For tank-mixing with chlorothalonil fungicides	8 – 30	<ul style="list-style-type: none"> <li>• Decrease the phytotoxic effect of chlorothalonil containing fungicides</li> </ul>	<ul style="list-style-type: none"> <li>• Apply in tank mixture with the chlorothalonil fungicide. Consult the fungicide label for appropriate rate and timing of application.</li> </ul>
<b>Currants</b>	8 – 30	<ul style="list-style-type: none"> <li>• Increased early marketable yield</li> <li>• Accelerated fruit ripening</li> <li>• Uniform color development</li> <li>• Improved fruit quality</li> </ul>	<ul style="list-style-type: none"> <li>• Apply approximately two weeks prior to harvest.</li> </ul>
<b>Strawberries</b>	6 - 25	<ul style="list-style-type: none"> <li>• Increased early marketable yield</li> <li>• Accelerated fruit ripening</li> <li>• Uniform color development</li> <li>• Improved fruit quality</li> </ul>	<ul style="list-style-type: none"> <li>• Apply 7 to 10 days prior to desired yield response.</li> <li>• Reapply at 7 to 14 day intervals to repeat desired yield response.</li> </ul>

<b>Tree and Vine Fruits</b>			
<b>Avocados</b>	8 – 30	<ul style="list-style-type: none"> <li>• Increased early marketable yield</li> <li>• Accelerated fruit ripening</li> <li>• Uniform color development</li> <li>• Improved fruit quality</li> </ul>	<ul style="list-style-type: none"> <li>• Apply approximately two weeks prior to harvest.</li> </ul>
<b>Citrus</b> Grapefruits, Mineolas, Lemons, Limes, Mandarins, Oranges, Pummelos, Tangelos and Tangerines	8 – 30	<ul style="list-style-type: none"> <li>• Increased early marketable yield</li> <li>• Accelerated fruit ripening</li> <li>• Uniform color development</li> <li>• Improved fruit quality</li> </ul>	<ul style="list-style-type: none"> <li>• Apply approximately two weeks prior to harvest.</li> </ul>
<b>Pome Fruits</b> Apples and Crabapples	8 – 30	<ul style="list-style-type: none"> <li>• Increased early marketable yield</li> <li>• Accelerated fruit ripening</li> <li>• Uniform color development</li> <li>• Improved fruit quality</li> </ul>	<ul style="list-style-type: none"> <li>• Apply approximately two weeks prior to harvest.</li> </ul>
Pears	8 – 30	<ul style="list-style-type: none"> <li>• Increased early marketable yield</li> <li>• Accelerated fruit ripening</li> <li>• Improved fruit quality</li> </ul>	<ul style="list-style-type: none"> <li>• Apply approximately two weeks prior to harvest.</li> </ul>
<b>Stone Fruits</b> Peaches, Plums and Cherries	8 – 30	<ul style="list-style-type: none"> <li>• Increased early marketable yield</li> <li>• Accelerated fruit ripening</li> <li>• Uniform color development</li> <li>• Improved fruit quality</li> </ul>	<ul style="list-style-type: none"> <li>• Apply approximately two weeks prior to harvest.</li> </ul>
Apricots	8 – 30	<ul style="list-style-type: none"> <li>• Increased early marketable yield</li> <li>• Accelerated fruit ripening</li> <li>• Improved fruit quality</li> </ul>	<ul style="list-style-type: none"> <li>• Apply approximately two weeks prior to harvest.</li> </ul>
<b>Tree Nuts</b> Pistachios, Walnuts, Pecans	8 – 30	<ul style="list-style-type: none"> <li>• Accelerated fruit ripening</li> <li>• Improved fruit quality</li> </ul>	<ul style="list-style-type: none"> <li>• Apply approximately two weeks prior to harvest</li> </ul>

<b>Vine Fruits</b>				
<b>Grapes</b>	Raisin	30	<ul style="list-style-type: none"> <li>• Increased early marketable yield</li> <li>• Accelerated fruit ripening</li> <li>• Improved fruit quality</li> </ul>	<ul style="list-style-type: none"> <li>• Apply approximately two weeks prior to harvest.</li> </ul>
	Wine and Juice	30	<ul style="list-style-type: none"> <li>• Increased early marketable yield</li> <li>• Accelerated fruit ripening</li> <li>• Uniform color development</li> <li>• Improved fruit quality</li> </ul>	<ul style="list-style-type: none"> <li>• Apply approximately two weeks prior to harvest.</li> </ul>
	Table Grape (such as Flame Seedless, Crimson, Thompson Seedless and Red Globe)	30	<ul style="list-style-type: none"> <li>• Increased early marketable yield</li> <li>• Accelerated fruit ripening</li> <li>• Uniform color development</li> <li>• Improved fruit quality</li> </ul>	<ul style="list-style-type: none"> <li>• Apply approximately two weeks prior to harvest.</li> </ul>
<b>Kiwi Fruit</b>		8 - 30	<ul style="list-style-type: none"> <li>• Increased early marketable yield</li> <li>• Accelerated fruit ripening</li> <li>• Improved fruit quality</li> </ul>	<ul style="list-style-type: none"> <li>• Apply approximately two weeks prior to harvest.</li> </ul>
<b>Others</b>				
<b>Coffee Mangos Pomegranates Pineapples</b>		8 - 30	<ul style="list-style-type: none"> <li>• Increased early marketable yield</li> <li>• Accelerated fruit ripening</li> <li>• Uniform color development</li> <li>• Improved fruit quality</li> </ul>	<ul style="list-style-type: none"> <li>• Apply approximately two weeks prior to harvest.</li> </ul>
<b>Mushrooms</b>		8 - 30	<ul style="list-style-type: none"> <li>• Improved fruit quality</li> <li>• Extended shelf life</li> </ul>	<ul style="list-style-type: none"> <li>• Apply approximately two weeks prior to harvest.</li> </ul>
<b>Cotton</b>		15 - 45	<ul style="list-style-type: none"> <li>• Acceleration of boll opening.</li> </ul>	<ul style="list-style-type: none"> <li>• Apply when there are sufficient unopened mature bolls to produce desired yields.</li> </ul>

**Post-Harvest Application Directions:**

Apply LPE-94 10% Aqueous as a washwater dip or as a spray. For dip applications add LPE-94 10% Aqueous to washwater, maintain water agitation and submerge fruit in washwater for up to 3 minutes. Follow standard handling procedures after treatment. For use as a spray, dilute LPE-94 10% Aqueous in water and apply uniformly to cover fruit prior to packing.

**Table 1**

Parts Per Million (PPM)	Amount of LPE-94 10% Aqueous to make 100 gallons of spray solution
25	4 fl. oz.
50	8 fl. oz.
100	16 fl. oz.
200	32 fl. oz.

Follow directions below for crop specific post harvest applications directions for use.

POST HARVEST APPLICATION				
Crop		Rate (ppm) for dip and/or spray	Use	Special Instructions
<b>Fruiting Vegetables</b>				
Eggplants		25-100 dip 500-1000 spray	<ul style="list-style-type: none"> <li>Improved fruit quality</li> <li>Extended shelf life</li> </ul>	<ul style="list-style-type: none"> <li>Prior to sorting and packaging, dip fruit in well-agitated water containing LPE for up to 3 minutes or uniformly spray fruit with LPE solution to achieve full coverage.</li> <li>Maintain chlorine levels and water pH at recommended levels.</li> <li>Allow fruit to dry before packaging.</li> </ul>
Tomatoes	Fresh Market	50-200 dip 500-1000 spray	<ul style="list-style-type: none"> <li>Improved fruit quality</li> <li>Accelerated natural ripening</li> </ul>	<ul style="list-style-type: none"> <li>Prior to sorting and packaging, dip fruit in well-agitated water containing LPE for up to 3 minutes or uniformly spray fruit with LPE solution to achieve full coverage.</li> <li>Maintain chlorine levels and water pH at recommended levels.</li> <li>Allow fruit to dry before packaging.</li> </ul>



<b>Peppers</b>	50-200 dip 500-1000 spray	<ul style="list-style-type: none"><li>• Improved fruit quality</li><li>• Extended shelf life</li></ul>	<ul style="list-style-type: none"><li>• Prior to sorting and packaging, dip fruit in well-agitated water containing LPE for up to 3 minutes or uniformly spray fruit with LPE solution to achieve full coverage.</li><li>• Maintain chlorine levels and water pH at recommended levels.</li><li>• Allow fruit to dry before packaging.</li></ul>
<b>Berries/Small Fruits</b>			
<b>Blueberries</b> <b>Boysenberries</b> <b>Cranberries</b> <b>Currants</b>	25-100 dip 500-1000 spray	<ul style="list-style-type: none"><li>• Improved fruit quality</li><li>• Extended shelf life</li></ul>	<ul style="list-style-type: none"><li>• Prior to sorting and packaging, dip fruit in well-agitated water containing LPE for up to 3 minutes or uniformly spray fruit with LPE solution to achieve full coverage.</li><li>• Maintain chlorine levels and water pH at recommended levels.</li><li>• Allow fruit to dry before packaging.</li></ul>
<b>Tree and Vine Fruits</b>			
<b>Avocados</b>	50-200 dip 500-1000 spray	<ul style="list-style-type: none"><li>• Improved fruit quality</li><li>• Accelerated natural ripening</li></ul>	<ul style="list-style-type: none"><li>• Prior to sorting and packaging, dip fruit in well-agitated water containing LPE for up to 3 minutes or uniformly spray fruit with LPE solution to achieve full coverage.</li><li>• Maintain chlorine levels and water pH at recommended levels.</li><li>• Allow fruit to dry before packaging.</li></ul>

<p><b>Citrus</b> Grapefruits, Mineolas, Lemons, Limes, Mandarins, Oranges, Pummelos, Tangelos and Tangerines</p>	<p>50-200 dip 500-1000 spray</p>	<ul style="list-style-type: none"> <li>• Improved fruit quality</li> <li>• Accelerated natural ripening</li> </ul>	<ul style="list-style-type: none"> <li>• Prior to sorting and packaging, dip fruit in well-agitated water containing LPE for up to 3 minutes or uniformly spray fruit with LPE solution to achieve full coverage.</li> <li>• Maintain chlorine levels and water pH at recommended levels.</li> <li>• Allow fruit to dry before packaging.</li> </ul>
<p><b>Pome Fruits</b> Apple, Crabapple and Pear</p>	<p>50-200 dip 500-1000 spray</p>	<ul style="list-style-type: none"> <li>• Improved fruit quality</li> <li>• Extended shelf life</li> </ul>	<ul style="list-style-type: none"> <li>• Prior to sorting and packaging, dip fruit in well-agitated water containing LPE for up to 3 minutes or uniformly spray fruit with LPE solution to achieve full coverage.</li> <li>• Maintain chlorine levels and water pH at recommended levels.</li> <li>• Allow fruit to dry before packaging.</li> </ul>
<p><b>Stone Fruits</b> Peaches, Plums, Cherries, Apricots</p>	<p>50-200 dip 500-1000 spray</p>	<ul style="list-style-type: none"> <li>• Improved fruit quality</li> <li>• Extended shelf life</li> </ul>	<ul style="list-style-type: none"> <li>• Prior to sorting and packaging, dip fruit in well-agitated water containing LPE for up to 3 minutes or uniformly spray fruit with LPE solution to achieve full coverage.</li> <li>• Maintain chlorine levels and water pH at recommended levels.</li> <li>• Allow fruit to dry before packaging.</li> </ul>

<b>Others</b>			
<p><b>Bananas</b></p>	<p>50-200 dip 500-1000 spray</p>	<ul style="list-style-type: none"> <li>• Accelerated natural ripening</li> <li>• Improved fruit quality</li> <li>• Extended shelf life</li> </ul>	<ul style="list-style-type: none"> <li>• Prior to sorting and packaging, dip fruit in well-agitated water containing LPE for up to 3 minutes or uniformly spray fruit with LPE solution to achieve full coverage.</li> <li>• Maintain chlorine levels and water pH at recommended levels.</li> <li>• Allow fruit to dry before packaging.</li> </ul>
<p><b>Mangos</b> <b>Pomegranates</b> <b>Pineapples</b></p>	<p>50-200 dip 500-1000 spray</p>	<ul style="list-style-type: none"> <li>• Improved fruit quality</li> <li>• Extended shelf life</li> </ul>	<ul style="list-style-type: none"> <li>• Prior to sorting and packaging, dip fruit in well-agitated water containing LPE for up to 3 minutes or uniformly spray fruit with LPE solution to achieve full coverage.</li> <li>• Maintain chlorine levels and water pH at recommended levels.</li> <li>• Allow fruit to dry before packaging.</li> </ul>
<p><b>Cut Flowers</b></p>	<p>1-25 ppm</p>	<ul style="list-style-type: none"> <li>• Extended shelf life</li> <li>• Improves blossom life</li> <li>• Enhances uniform bud opening</li> </ul>	<ul style="list-style-type: none"> <li>• Dilute LPE in water and submerge stems of freshly cut flowers in solution.</li> <li>• Renew LPE solution if water becomes cloudy.</li> <li>• Contact your Nutra-Park representative for use guidance for specific flower varieties.</li> </ul>

**Chemigation Directions for Use**

**General Requirements:**

- 1) Apply this product only through a sprinkler including a center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set of hand move irrigation and systems. Do not apply this product through any other type of irrigation system.
- 2) Crop injury or lack of effectiveness can result from non-uniform distribution of treated water.
- 3) If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
- 4) 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.
- 5) 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 any necessary adjustments should the need arise.

**Specific Requirements:**

- 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 back flow.
- 2) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of liquid back towards the injection pump.
- 3) The pesticide injection pipeline must contain a functional, normally dosed, 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 filled with a system interlock.
- 7) Do not apply when wind speed favors drift beyond the area intended for treatment.

**Application Instructions:**

- 1) Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and entire injector system. Flush with clean water. Failure to provide a clean tank, void of scale or residues may cause product to loose effectiveness or strength.
- 2) Determine the treatment rates as indicated in the directions for use and make proper dilutions.
- 3) Prepare a solution in the chemical tank by filling the tank with the required water and then adding product as required. The product will immediately go into suspension without any required agitation.

**STORAGE AND DISPOSAL**

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

**Storage** - Store in a cool, dry place until ready to use. Avoid extreme temperatures (below 32°F or above 100°F).

**Pesticide Disposal** - Wastes resulting from use of this product may be disposed of at an approved waste disposal facility.

**Container Disposal**- Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

(LIMITED WARRANTY)