

# refine<sup>®</sup> 24.2L

A hormone type product for control of pre-harvest drop of apples and pears

<b>Active Ingredient:</b> 1-Naphthaleneacetic Acid, Potassium Salt*	24.2%
<b>Other Ingredients:</b>	75.8%
<b>Total:</b>	100.0%

\*Equivalent to 20.2% of 1-Naphthaleneacetic Acid or 830 grams (1.83 lbs) per gallon

**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

EPA Reg. No. 62097-38-82917

EPA Est. No. 39578-TX-001

Net Contents: 1 gallon (3.78 liters)

### FIRST AID

#### IF IN EYES

- 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.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact the National Poison Control Hotline at 1-800-222-1222 for emergency medical treatment information 24 hours a day, seven days a week.

Note to Physician: No specific antidote is available. All treatments should be based on observed signs and symptoms of distress in the patient. Over exposure to materials other than this product may have occurred.

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION.** Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Wear long-sleeved shirt and long pants, shoes and socks.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are made of any waterproof material.

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material (except pilots)
- Shoes plus socks

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning and 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 before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling 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, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash waters or rinsate. Do not contaminate irrigation ditches or water used for irrigation or domestic purposes. Do not apply when weather conditions favor drift from treated areas.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labelling 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 entry into treated areas during the restricted entry interval (REI) of 48 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
- Shoes plus socks
- Chemical resistant gloves such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride or viton

### DIRECTIONS FOR USE

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

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 requirement specific to your state or tribe, consult the state or tribal agency responsible for pesticide regulation. Do not apply this product through any type of irrigation system.

Do not use in a greenhouse.

### PRODUCT INFORMATION

Refine 24.2L is plant growth regulator for use in fruit production. The response of fruit trees to an application may vary depending on factors such as variety, climatic factors, tree vigor, etc. Users need to consider these factors before choosing the desired rate and timing for application. Always apply Refine 24.2L using sufficient water to ensure complete and uniform spray coverage. Application can be made in the range of 50-400 gallons of water per acre. The appropriate spray volume is determined by the type of equipment used, tree size and density of foliage. Consider all variables in rate and application timing for each variety and orchard location when establishing the spray program.

Refine 24.2L can be used to control pre-harvest drop of apples and pears leading to a higher yields and a reduction of losses from factors such as windfall and knockdown.

Refine 24.2L, when diluted with the specified amount of water, is physically compatible with a wide range of commonly used spray products. However, evaluating the full ranges of compatibilities under all conditions is impossible. Therefore, it is recommended that users premix a small quantity of a desired tank mix and observe for possible adverse changes (settling out, flocculation, etc.). Avoid mixtures of several materials and very concentrated spray mixtures. Observe all limitations and precautions on labeling of all products used in any tank mix. It is recommended that you consult your local Extension Pomologist for guidance or when tank mixing any product you have not previously used with Refine 24.2L. In addition, always test spray a small area prior to the general use of a tank mix that you have not previously used.

**Do not** apply when wind speeds are greater than 10 mph at the application site.

Specific use directions for orchard air blast applications:

- Sprays must be directed into the crop canopy.
- Turn off outward pointing nozzles at row ends and when spraying outer rows.
- For ground based applications and aerial applications, use only medium or coarser spray droplets (or nozzles) according to ASABE (S572) definition for standard nozzles.

For broadcast use, the maximum application rate is 0.11 lb per acre of 1-NAA equivalent for all uses.

The maximum application rate per year or crop cycle is **not** to exceed 0.33 lb per acre of 1-NAA equivalent.

The minimum interval between applications is to be no less than 5 days.

**Table 1. Refine 24.2L spray preparation chart for dilute application.**

Note: All use of ppm refers to the active ingredient (a.i.) not the formulated product.

Rate	Gallons of spray per acre			
(ppm)	100	150	300	400
2	0.12 fl oz	0.18 fl oz	0.36 fl oz	0.48 fl oz
5	0.3 fl oz	0.45 fl oz	0.9 fl oz	1.2 fl oz
7.5	0.45 fl oz	0.68 fl oz	1.35 fl oz	1.8 fl oz
10	0.6 fl oz	0.9 fl oz	1.8 fl oz	2.4 fl oz
15	0.9 fl oz	1.35 fl oz	2.7 fl oz	3.6 fl oz
20	1.2 fl oz	1.8 fl oz	3.6 fl oz	4.8 fl oz

### APPLICATION INSTRUCTIONS

#### **Control of pre-harvest drop - apples:**

Apply Refine 24.2L at 7-14 days prior to harvest. Application timing is dependent on the maturation of the crop, requiring that separate sprays be applied to early and late maturing varieties. **Do not** make more than two applications of Refine 24.2L per year, and **do not** delay picking beyond optimum maturity. **Do not** spray within 2 days of harvest. Refine 24.2L is effective in 3-4 days after application and controls drop for 2 weeks.

**Ground application:** Use 4-8 fl oz of Refine 24.2L per acre in sufficient water to ensure good coverage.

**Aerial application:** Use 4-8 fl oz of Refine 24.2L in at least 5 gallons of water per acre. Utilize aircraft spray equipment that gives thorough coverage to all portions of the tree canopy. Apply Refine 24.2L only when weather conditions favor minimal spray drift. Use lower rates for normal foliage and fruiting. For dense foliage and heavy fruiting, higher rates may be necessary. **Do not** apply within 2 days of harvest.

#### **Control of pre-harvest drop - pears (Bartlett, Bosc):**

Apply Refine 24.2L to pears 5-7 days prior to harvest. Application timing is dependent on the maturation of the crop, requiring that separate sprays be applied to early and late maturing varieties. **Do not** make more than 2 applications and **do not** delay picking beyond optimum maturity. Refine 24.2L is effective in 3-4 days after application and controls drop for 2 weeks. **Do not** apply within 2 days of harvest. **Do not** apply more than 8 fl oz per acre per year.

**Ground application (except California):** Use 2-4 fl oz of Refine 24.2L per acre in sufficient water to ensure good coverage. When Bartlett and Bosc are inter-planted, spray only once per year. Use a maximum of 4 fl oz of product per acre per year on Bartlett to prevent premature ripening.

**Ground application (California):** Use 2-6 fl oz of Refine 24.2L per acre in sufficient water to ensure good coverage. When Bartlett and Bosc are inter-planted, spray only once per year. Use a maximum of 4-6 fl oz of product per acre per year on Bartlett to prevent premature ripening.

**Aerial application (except California):** Use 2-4 fl oz of Refine 24.2L in at least 5 gallons of water per acre. Utilize aircraft spray equipment that gives thorough coverage to all portions of the tree canopy. Apply Refine 24.2L only when weather conditions favor minimal spray drift. Use lower rates for normal foliage and fruiting. For dense foliage and heavy fruiting, higher rates may be necessary. **Do not** apply within 2 days of harvest.

**Aerial application (California):** Use 2-6 fl oz of Refine 24.2L in at least 5 gallons of water per acre. Utilize aircraft spray equipment that gives thorough coverage to all portions of the tree canopy. Apply Refine 24.2L only when weather conditions favor minimal spray drift. Use lower rates for normal foliage and fruiting. For dense foliage and heavy fruiting, higher rates may be necessary. **Do not** apply within 2 days of harvest.

**Control of pre-harvest drop - pears (D'Anjou):**

**Do not** apply more than 8 fl oz per acre per year.

**Ground application (Idaho, Oregon and Washington):** Apply either one single application of 8 fl oz per acre OR two 2-4 fl oz applications per acre.

**Ground application (California):** Use 2-6 fl oz of Refine 24.2L per acre in sufficient water to ensure good coverage.

**Ground application (all other states):** Use 2-4 fl oz of Refine 24.2L per acre in sufficient water to ensure good coverage.

**Aerial application (Idaho, Oregon and Washington):** Apply either one single application of 8 fl oz per acre OR two 2-4 fl oz applications per acre.

**Aerial application (California):** Use 2-6 fl oz of Refine 24.2L in at least 5 gallons of water per acre. Utilize aircraft spray equipment that gives thorough coverage to all portions of the tree canopy. Apply Refine 24.2L only when weather conditions favor minimal spray drift. Use lower rates for normal foliage and fruiting. For dense foliage and heavy fruiting, higher rates may be necessary. **Do not** apply within 2 days of harvest.

**Aerial application (all other states):** Use 2-4 fl oz of Refine 24.2L in at least 5 gallons of water per acre. Utilize aircraft spray equipment that gives thorough coverage to all portions of the tree canopy. Apply Refine 24.2L only when weather conditions favor minimal spray drift. Use lower rates for normal foliage and fruiting. For dense foliage and heavy fruiting, higher rates may be necessary. **Do not** apply within 2 days of harvest.

**Preserving ornamental holly boughs:**

To delay leaf drop of holly boughs, make a "dip solution" containing 2-4 fl oz of Refine 24.2L in 100 gallons of water (equal to 33-66 ppm). Dip holly boughs in the treated solution immediately after cutting. Allow excess solution to drain from boughs. **Do not** soak or leave boughs in dip solution. Replenish dip solution as needed. To maintain the effectiveness of Refine 24.2L, mix and use a new solution every 3-4 days.

**Refine 24.2L compatibility with other products:**

Refine 24.2L is compatible with a wide range of pesticides. Field test the mixture on a small scale to insure the product performance and plant safety before large-scale field use. Observe all limitations and precautions on labeling of all products used in mixtures. **DO NOT APPLY TANK MIX COMBINATIONS UNLESS YOUR PREVIOUS EXPERIENCE INDICATES THE MIXTURE IS EFFECTIVE AND WILL NOT RESULT IN APPLICATION PROBLEMS OR PLANT INJURY.**

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Keep container tightly closed when not in use. Store in a cool, dry place. Protect from temperatures below 32°F. This product may freeze. If freezing should occur, thaw and shake gently to unify the product. Do not store diluted product.

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

**CONTAINER HANDLING:** Non-refillable 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 or reconditioning, if available, 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.

## WARRANTY DISCLAIMER AND LIMITATION OF LIABILITY

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It is impossible to eliminate all risks associated with this Product. Plant injury, lack of performance, or other unintended consequences may result because of factors such as abnormal weather conditions, use of the Product other than in strict accordance with this label's instructions, presence of other materials, the manner of application or other factors, all of which are beyond the control of FINE or the seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

To the extent consistent with applicable law: 1) FINE disclaims any liability whatsoever for special, incidental or consequential damages resulting from the handling or use of this Product and 2) FINE's liability under this label shall be limited to the amount of the purchase price or, at the election of FINE, the free replacement of the Product.

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