



## OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

October 31, 2024

Mark Mongiovi  
Regulatory Regional Lead, US  
UPL NA Inc.  
630 Freedom Business Center, Suite 402  
King of Prussia, PA 19406

Subject: Label Amendment - Registration Review Mitigation for Ethephon  
Product Name: ETHEPHON 3.9% H&G  
EPA Registration Number: 70506-464  
Application Date: February 3, 2020  
Decision Number: 559336  
Case Number: 476723

Dear Mark Mongiovi:

The Agency, in accordance with the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the Ethephon Interim Decision, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide, Fungicide, and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling and must be used at your next label printing. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

If you have any questions about this letter, please contact Caleb Carr by phone at (202) 566-0636, or via email at [carr.caleb@epa.gov](mailto:carr.caleb@epa.gov).

Sincerely,

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

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

ENCLOSURE: Stamped label

## ETHEPHON 3.9% H&G

For use only on plants grown for aesthetic purposes or climatic modification and being grown at home or in ornamental gardens or parks, or on golf courses or lawns and grounds.

For use on ornamentals for removal of nuisance fruit from trees and shrubs, for earlier ripening of home garden tomatoes, for the removal of dwarf mistletoe shoots in ornamental conifers, and for removal of leafy mistletoe shoots in ornamental deciduous trees.

### ACTIVE INGREDIENT:

Ethephon: [(2-chloroethyl) phosphonic acid]\* ..... 3.9%

**INERT INGREDIENTS:** ..... 96.1%

**TOTAL:** ..... 100.0%

\*This product contains 0.33 lbs. ethephon per gallon

**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

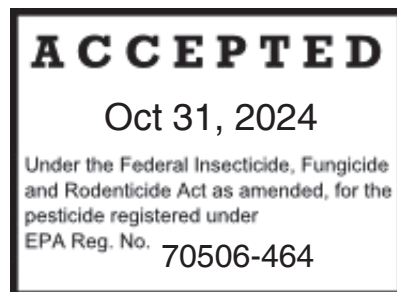
FIRST AID	
<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF ON SKIN:</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>
HOT LINE	
Have the product container or label with you when calling a poison center or doctor, or going for treatment. You may also contact 1-800-832-4357 for emergency medical treatment information.	
<b>NOTE TO PHYSICIAN:</b> Treat symptomatically. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. No specific antidote is available. Probable mucosal damage may contraindicate the use of gastric lavage.	
<b>EMERGENCY TELEPHONE NUMBERS:</b> Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<b>FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE CALL:</b> 1-866-303-6952	
<b>FOR CHEMICAL EMERGENCY:</b> Spill, leak, fire, exposure, or accident call CHEMTREC 1-800-424-9300	

See Additional Precautions on Side (Back) Panel

NET CONTENTS: \_\_\_\_\_  
AD 080504

EPA Reg. No. 70506-464  
EPA Est. No. 51036-GA-001

Manufactured For:  
UPL NA Inc.  
PO Box 12219  
Research Triangle Park, NC 27709



**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS  
CAUTION**

Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling. Remove and wash contaminated clothing before reuse. Wear long-sleeved shirt and long pants, socks and shoes, and chemical resistant gloves made of Nitrile Rubber ≥ 14 mils, Butyl Rubber ≥ 14 mils, or barrier laminate.

**USER SAFETY RECOMMENDATIONS**

Users should:

Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Do not allow people or pets to touch treated plants until the sprays have dried.

**ENVIRONMENTAL HAZARDS**

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high-water mark. Do not contaminate water when disposing of equipment washwaters.

**NON-TARGET ORGANISM ADVISORY STATEMENT:** This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

Prolonged exposure to spray deposits can damage acrylic plastics, certain paints and metals. Remove automobiles and other vehicles from the treatment area prior to application to prevent spray deposits from falling on vehicles and potentially damaging finishes. Rinse acrylic plastic materials and painted surfaces exposed to inadvertent spray deposits using soap and water within an hour after exposure.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read entire label before using this product. Do not apply this product in a way that will contact workers or other persons, either directly or through drift.

**MANDATORY SPRAY DRIFT MANAGEMENT**

**Ground Boom 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 fine to medium or coarser droplet size (ANSI/ASAE S572.3 FEB2020).
- 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:**

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

**Airblast applications:**

- Direct spray into the canopy.
- Turn off outward pointing nozzles at row ends and when spraying outer rows.

**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**

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 on the 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.

### **STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:** Store in original container secure from children and domestic animals. In case of spill, absorb liquid with inert absorbent such as cat litter. Rinse contaminated area with water.

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

**CONTAINER DISPOSAL:** 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  $\frac{1}{4}$  full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or 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. Offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or incineration or if allowed by state and local authorities, by open burning. If container is burned, stay out smoke.

### **GENERAL INFORMATION**

Apply ETHEPHON 3.9% H&G spray solution within 4 hours after mixing. Mix only the amount of spray you plan to use immediately. Do NOT save unused diluted spray solutions, as they will not be as effective as fresh solutions.

Temporary growth inhibition resulting from shortened internodes may be observed.

### **HOME GARDEN TOMATO PRODUCTION USE**

ETHEPHON 3.9% H&G can be used as an overall, foliar spray to concentrate and accelerate tomato ripening. Apply ETHEPHON 3.9% H&G at the end of the growing season to hasten ripening of mature green tomatoes and allow harvesting of fruit before frost. ETHEPHON 3.9% H&G spray will be most effective on healthy plants. Harvest fruit at proper maturity, generally 14 to 21 days after treatment. Some defoliation or yellowing of foliage following treatment will be observed.

Do not harvest tomatoes for processing treated with ETHEPHON 3.9% H&G sooner than 14 days after the last application.

**AMOUNTS TO USE:** When treating several plants, mix 1 teaspoon of ETHEPHON 3.9% H&G in 3 fluid ounces (6 tablespoons) of water. When treating a larger number of plants, mix 1 3/4 fluid ounces (3 1/2 tablespoons) of ETHEPHON 3.9% H&G in 1 quart of water. Apply with a clean hand sprayer. Thoroughly wet all leaves and fruit.

### **FRUIT ELIMINATION**

A foliar spray of ETHEPHON 3.9% H&G will reduce or eliminate undesirable fruit ornamental trees and shrubs such as:

Apple, Crabapple, Carob, Cottonwood, Elm, Flowering pear, Horse Chestnut (Buckeye), Maple, Oak, Olive, Pine, Sour Orange, Sweetgum, and Sycamore. Applications must be made before fruit set for best results.

When applied to plants, ETHEPHON 3.9% H&G readily enters the plant and breaks down to ethylene, a naturally occurring plant hormone. Ethylene production within the plant is stimulated by stress. For this reason it is important that plants being treated are not under stress from drought, high temperature, disease or other environmental stress conditions. Treating stressed plants can cause severe injury to the plant such as defoliation or leaf scorching. Injury from ETHEPHON 3.9% H&G usually does not kill the plant, but can render it unsightly.

Applications should be made at the flower bud to full bloom stage, prior to fruit set in spray volumes sufficient to wet, but not to runoff. Failure to wet bud/blooms thoroughly will cause incomplete fruit elimination. Spraying too much (until runoff) may cause some defoliation or other plant injury. Sprays applied too early or too late will be less effective and result in incomplete fruit elimination. The activity of ETHEPHON 3.9% H&G is linked to plant growth activity and is therefore slower acting when temperatures are low (60F) or very high (95F). Trees or shrubs should not be under stress when treated such as from drought, insect or diseases.

For most species, mix 3/4 to 1 quart of ETHEPHON 3.9% H&G in 10 gallons of water (750 to 1,000 ppm) and apply to thoroughly wet buds and blooms but not to runoff. Amount of spray used will depend on tree size. Use the higher rate when temperatures are cool. Fruit elimination may not be satisfactory on small, red fruited varieties of crabapples. Some temporary leaf yellowing and leaf drop of older leaves may occur after treatment.

For sensitive species such as Carob: Mix 1/2 quart ETHEPHON 3.9% H&G in 10 gallons of water (500 ppm) and apply to thoroughly wet buds and blooms but not to runoff. Amount of spray used will depend on tree

size. Some temporary leaf yellowing and drop of older leaves may occur after treatment.

ETHEPHON 3.9% H&G has not been tested on all varieties of trees or shrubs which may have undesirable fruit. If it is necessary treat plant species not listed above, a small portion of the plant using the lower rate of application to determine the effectiveness of the product and to evaluate plant injury.

NOTE: These recommendations are not intended to be used in commercial fruit production as a thinning agent.

#### **DWARF MISTLETOE REMOVAL:**

Use ETHEPHON 3.9% H&G as a foliar spray on ornamental conifers for removal of dwarf mistletoe shoots and seeds. Applications made in conjunction with silvicultural mistletoe management will prevent spread of the mistletoe parasite to other parts of the tree and to other trees. Mix 1 quart of ETHEPHON 3.9% H&G in 4 gallons of water (2700 ppm) and spray to "wet". When treating mistletoe in Douglas Fir, mix 1 pint of ETHEPHON 3.9% H&G in 4 gallons of water (1350 ppm). Application of higher rates on Douglas Fir may result in excessive needle drop. Use of a non-ionic surfactant at recommended rates may increase effectiveness. Treat any mistletoe regrowth before seed dispersal occurs. Mature needle drop that normally occurs in the fall may be hastened by the use of ETHEPHON 3.9% H&G.

#### **LEAFY MISTLETOE REMOVAL:**

Use ETHEPHON 3.9% H&G as a foliar spray on deciduous trees for removal of leafy mistletoe shoots and seeds. Make applications after fall leaf drop through midwinter. Mix 2 quarts of ETHEPHON 3.9% H&G in 4 gallons of water (5400 ppm). For effective removal all mistletoe shoots must be sprayed to "wet". Use of a non-ionic surfactant at recommended rates may increase effectiveness. Large mistletoe infections and mistletoe found in mesquite may be difficult to control with a single application and re-treatment may be necessary. Should regrowth of mistletoe occur, retreat prior to mistletoe seed dispersal during the labeled application window.

### **HOME SPRAY GUIDE** **Read Detailed Instructions in This Pamphlet First**

<b>APPLICATION</b>	<b>USE SITE</b>	<b>AMOUNT OF ETHEPHON 3.9%</b>	<b>AMOUNT OF WATER</b>
Ripening	Tomato, Fall Season	1.75 fl. oz.	1 Quart
Fruit Elimination	Carob	1.5 fl. oz.	1 gal.
	Other Species	2.5 - 3.0 fl. oz.	1 gal.
Mistletoe Removal	Dwarf	8 fl. oz.	1 gal.
	Leafy	16 fl. oz.	1 gal.

Note: 1.0 fluid ounce = 2 tablespoons = 6 teaspoons

### **Warranty and Disclaimer Statement**

The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Such risks may arise from weather conditions, soil factors, off-target movement, unconventional farming techniques, the presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of UPL NA Inc. ("UPL"), and can cause crop injury, injury to non-target crops or plants, ineffectiveness of the product, or other unintended consequences. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer.

UPL 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, subject to the inherent risks described above, when used in accordance with the Directions for Use under normal conditions. This warranty does not extend to the use of this product contrary to label instructions or under conditions not reasonably foreseeable to UPL, and is subject to the inherent risks described above.

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