

# Trilogy®

## FUNGICIDE/MITICIDE/INSECTICIDE

For use on vegetables, fruits, nuts, melons, outdoor ornamental plants and agronomic crops.  
For foliar control of fungal disease and insect pests.  
Can be Used Up to Day of Harvest



### FOR ORGANIC PRODUCTION

#### ACTIVE INGREDIENT:

Clarified Hydrophobic Extract of Neem Oil .....70%

**OTHER INGREDIENTS** .....30%

**TOTAL** .....100%

This product contains 5.46 lb of clarified hydrophobic extract of neem oil per US gallon.

This container will treat up to 0.5 acres when used at the highest application rate (only for containers less than 5 gallons).

#### Net Contents:

EPA Reg. No. 70051-2

EPA Est. No.70051-CA-001

Composition covered by US Patents 5,298,251; 5,356,629; 5,372,817; 5,405,612; and 5,409,708.

Lot No.:

Manufactured by  
Certis USA, L.L.C.  
9145 Guilford Road  
Suite 175  
Columbia, MD 21046



**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

#### PRECAUTIONARY STATEMENTS

##### HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if absorbed through the skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

#### FIRST AID

**If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.

**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. Hot Line Number: 1-800-255-3924.

#### Personal Protective Equipment:

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category C on an EPA chemical resistance category selection chart.

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves, such as barrier laminate or butyl rubber or nitrile rubber or neoprene rubber or polyvinyl chloride (PVC) or Viton.
- Shoes plus socks.

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

#### User Safety Recommendations:

Users should:

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### ENVIRONMENTAL HAZARDS

This product is hazardous to fish and aquatic invertebrates. For Terrestrial Uses: 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 washwater or rinsate.

#### BEE HAZARD

This product is toxic to bees exposed to direct treatment. Do not apply this product while bees are actively visiting the treatment area.

#### PHYSICAL AND CHEMICAL HAZARDS

Do not use or store near heat or open flame.

## DIRECTIONS FOR USE

### IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING.

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 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls
- Chemical-resistant gloves, such as barrier laminate or butyl rubber or nitrile rubber or neoprene rubber or polyvinylchloride (PVC) or Viton.
- Shoes plus socks.

#### GENERAL INFORMATION:

- Thorough coverage is necessary to provide good disease and mite control. Trilogy® prevents fungal attack of plant tissue and contact activity to mite pressure on the plant. Avoid excessive runoff of spray material for maximum control.
- For best results, maintain constant agitation in spray equipment.
- For optimal performance, do not mix with cold water (less than 45°F).
- Do not apply to wilted or otherwise stressed plants, or to newly transplanted materials or crops prior to root establishment.
- Do not apply to known sensitive plant species, such as impatiens flowers, fuchsia flowers, hibiscus flowers, some rose flowers, ornamental olive trees, or some carnation varieties without prior testing.
- When used in conjunction with beneficial insects, conduct a small trial to assure compatibility before using on a large scale.
- As with other oil-based products, exercise care in timing applications to early morning/late evening to minimize the potential for leaf burn.
- Use with care on plants with tender tissue. Check for leaf burn in small scale trials prior to use.

#### LANDSCAPE AND NURSERY USE INSTRUCTIONS

##### FUNGICIDE USE

##### ORNAMENTAL DISEASE CONTROL

Trilogy® is an effective fungicide for the prevention and control of various fungal diseases including black spot on roses, powdery

mildew, downy mildew, anthracnose, rust, leaf spot, botrytis, needle rust, scab, flower, twig, and tip blight, and alternaria.

##### Landscaping and Nursery Ornamentals

Trilogy® will provide broad spectrum control of many fungal diseases affecting ornamental flowering plants, trees, shrubs, and foliage when used at the rate of 1 gallon per 100 gallons of water. Apply Trilogy® at a rate of 1:100 when spraying as a preventative for outdoor applications. Under extreme outdoor conditions, apply Trilogy® at the 1:50 application rate (see table for detailed use rates). This will provide the necessary control under the extreme outdoor conditions. When using Trilogy® as a preventative, make application on a 14-day schedule. If disease is present, use a 7-day application schedule to control the disease and prevent further damage from occurring.

##### MIXING INSTRUCTIONS

Add Trilogy® to one-half (1/2) full tank under agitation containing water of 45°F or greater before filling to desired level. If water temperature is below 45°F, premix Trilogy® at a 1:1 ratio with tepid water to ensure good emulsification. Then dilute to final volume. When combining with other products, such as wettable powder insecticides or fungicides, add these items first when the tank is approximately 1/3 full. Ensure that there is good agitation while mixing for complete emulsification. Maintain agitation during spray application. Do not use if this oil does not form a uniform, cloudy emulsion.

##### APPLICATION INSTRUCTIONS

Apply until plant surface is uniformly wet with minimal runoff at 25-40 psi with hand sprayer or 100-200 psi with power sprayer as a fine spray to both leaf surfaces. Avoid excessive application.

MANAGEMENT OF LANDSCAPE AND ORNAMENTAL DISEASES			
SPRAY TARGET	CONCENTRATION	SPRAY INTERVAL	PRECAUTIONS
Outdoor Flowering Plants	1:50 - 1:100 (2.0% - 1.0%)	7-14 days	Do not spray impatiens flowers
Outdoor Woody Plants	1:50 - 1:100 (2.0% - 1.0%)	14 days	

##### INSECTICIDE/MITICIDE USE

For use to control whiteflies, mealybugs, aphids, leafhoppers, mites and scales on ornamentals, trees, and shrubs in and around commercial nurseries and other commercial structures.

Use Trilogy® at the rate of 1-2 gallons per 100 gallons of water. The low rate (1.0%) can be used when pest pressure is low. Use the high rate (2.0%) for high pest infestations or to control more troublesome pests, such as mites and scales. Determine the best rate for your particular situation.

Make sprays on a 7-14 day interval depending on the severity of the pest problem. Use the 7-day schedule until the pest population is reduced. Then use a 14-day interval for control.

##### AGRICULTURAL USE DIRECTIONS

Trilogy® is a broad spectrum fungicide of certain diseases and controls mites in citrus, deciduous fruits and nuts, vegetable crops, cereal grains, and other miscellaneous crops.

- Do not use Trilogy® after bloom on table grapes or following bunch closure on wine grapes. Do not use Trilogy® after pit hardening on stone fruit.

- Use care when applying near streams, ponds, lakes, or other bodies of water. Do not apply Trilogy® when weather conditions favor drift or when the likelihood of runoff is high.
- Apply Trilogy® by conventional, low volume, and aerial application equipment.

**APPLICATION INSTRUCTIONS**

**Ground Application:** Apply Trilogy® by ground application in a minimum of 25 gallons of water / acre.

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

**Aerial Application:** For those crops where aerial applications are indicated, apply a minimum of 5 gallons of water / acre unless otherwise specified. Avoid application under conditions when uniform coverage cannot be obtained or when excessive drift may occur. Do not apply directly to humans, animals or aquatic animals.

**DILUTION TABLE FOR LOW VOLUME (INCLUDING AERIAL) APPLICATIONS (5-30 gallons per acre)**

Gallons of Water	TRIOLOGY®	DILUTION
5	1 Quart*	5%
10	1 Quart*	2.5%
15	1 Quart*	1.67%
20	1 Quart*	1.25%
25	1 Quart*	1.0%
30	1 Quart*	0.83%

\*For citrus, stone fruit, tropical fruit, pome fruit, and nuts, refer to specific application instructions.

**DILUTION TABLE FOR HIGH VOLUME APPLICATION (25-250 gallons per acre)**

Gallons Water	Gallons of Trilogy® for 0.5% Solution	Gallons of Trilogy® for 1.0% Solution	Gallons of Trilogy® for 1.5% Solution	Gallons of Trilogy® for 2.0% Solution
25	Use 1.0% solution*	0.25 (32 fl. oz.)	0.375 (48 fl. oz.)	0.5 (64 fl. oz.)
50	0.25 (32 fl. oz.)	0.5 (64 fl. oz.)	0.75 (96 fl. oz.)	1.0
75	0.375 (48 fl. oz.)	0.75 (96 fl. oz.)	1.125	1.5
100	0.5	1.0	1.5	2.0
125	0.625 (80 fl. oz.)	1.25	1.875	2.5
150	0.75	1.5	2.25	3.0
175	0.875 (112 fl. oz.)	1.75	2.625	3.5
200	1.0	2.0	3.0	4.0
225	1.125	2.25	3.375	4.5
250	1.25	2.5	3.75	5.0

\*For Vegetable, Cereal Grains, and Other Miscellaneous Crops, refer to specific use directions.

**AGRICULTURAL USE DIRECTIONS (continued)**

- For Diseases: Apply Trilogy® as a 1.0% solution in sufficient amounts of water to achieve complete coverage of foliage. (See the following detailed directions per crop groupings). When used as a foliar fungicide, begin applications when conditions are favorable for disease but before infection. Apply Trilogy® every 7-14 days until threat of disease is over. Use Trilogy® in rotation with other fungicides to increase the spectrum of control.
- For Mites: For best results, apply Trilogy® in sufficient amounts of water to achieve complete coverage. Trilogy® is most effective when applied before mites or eggs are present in large numbers. (See the following detailed directions per crop groupings). Apply at a rate of 1.0-2.0% Trilogy®. Reapply Trilogy® every 7-21 days until pressure is over.

- For Insects: For best results, apply Trilogy® at 1.0-2.0% in sufficient amounts of water to achieve complete coverage. Trilogy® is most effective when applied before insects or eggs are present in large numbers. Repeat application based on pest pressure and field scouting for best results. Use the dilution tables to calculate dilution rates.

**MIXING INSTRUCTIONS**

Add Trilogy® to one-half (1/2) full tank under agitation containing water of 45°F or greater before filling to desired level. If water temperature is below 45°F, premix Trilogy® at a 1:1 ratio with tepid water to ensure good emulsification. Then dilute to final volume. When combining with other products, such as wettable powder insecticides or fungicides, add these items first when the tank is approximately 1/3 full. Ensure that there is good agitation while mixing for complete emulsification. Maintain agitation during spray application. Do not use if this oil does not form a uniform, cloudy emulsion.

**TANK MIXING:** Trilogy® has been found to be compatible with most commonly used fungicides, insecticides and fertilizers. Check physical compatibility first with other products before mixing by using a jar test. Using a quart jar, add the proportionate amounts of the products to 1 quart of water. After thoroughly mixing, let mixture stand for at least 5 minutes. Growers must tank mix combinations for phytotoxicity on a sample of plants prior to use. *Due to the wide variation in climatic conditions, cultural practices, and other factors, the User assumes full responsibility for any crop damage or other liability resulting from the use of Trilogy® in a tank mix combination.* Avoid tank mixes with Morestan, Captan, Sulfur, Bravo/Echo, chlorothalonil or other chemically similar products as unpredictable results or leaf burn may occur.

**CITRUS**

Use Trilogy® on citrus to control diseases to include Anthracnose, Post-Bloom Fruit Drop, and Scab. Apply as a foliar application at the rate of 1.0% in 25-200 gallons of water for high volume applications or a minimum of 0.5 gallons Trilogy® in a minimum of 5 gallons of water per acre for low volume applications. Do not apply more than 2.5 gallons of Trilogy® per acre, per application.

Reapply Trilogy® every 7-14 days until threat of disease is over.

For control of Alternaria and Greasy Spot, apply Trilogy® at a 1.0% solution in 25-125 gallons of water per acre in combination with Copper @ 2.0 lbs a.i. per acre (as found in EPA registered products such as Kocide® and Champ®) as a preventative disease spray tank mixture.

Use Trilogy® on citrus to control mites at a rate of 1.0-2.0% in 25-200 gallons of water for high volume application or 0.5 gallon Trilogy® in a minimum of 5 gallons of water per acre for low volume application. As a dormant oil spray, use Trilogy® as a 2% solution or 1 quart Trilogy® minimum per acre. Do not apply more than 5 gallons of Trilogy® per acre, per application.

**STONE AND TROPICAL FRUITS**

**FUNGICIDE USE:** Apply Trilogy® at a rate of 1.0% in 25-200 gallons of water for high volume applications or 0.5 gallons Trilogy® in a minimum of 5 gallons of water per acre for low volume application. Reapply Trilogy® every 7-14 days until threat of disease is over.

**MITICIDE USE:** Use Trilogy® at first sign of pests or pest damage at the appropriate rate listed below as a foliar spray in sufficient water for thorough coverage. Repeat applications as needed for adequate control every 7-21 days. Apply a 1.0-2.0% solution

of Trilogy® for high volume application or a minimum of 1 quart Trilogy® in a minimum of 5 gallons of water per acre for low volume application. Do not apply more than 5 gallons of Trilogy® per acre, per application.

Do not use Trilogy® after pit hardening on stone fruit.

**VEGETABLE, CEREAL GRAINS AND OTHER MISCELLANEOUS CROPS FUNGICIDE USE**

Apply Trilogy® at the rate of 0.5% - 1.0% in 25 - 100 gallons of water per acre or 2 pints Trilogy® in a minimum of 5 gallons of water per acre for low volume applications. Repeat applications every 7-14 days. Apply no more than 2 gallons Trilogy® per acre, per application. Larger plants will require higher amounts of water to obtain good coverage. For mushrooms, apply Trilogy® at a rate of 0.5% - 2.0% in 25 -100 gallons of water per 8,000 square feet. Repeat applications every 7 - 14 days.

**MITICIDE USE**

Apply Trilogy® at a rate of 0.5% - 2.0% in 25 - 100 gallons of water per acre or 2 pints Trilogy® in a minimum of 5 gallons of water per acre for low volume application. Apply no more than 2 gallons Trilogy® per acre in solution per application. Apply in a solution of sufficient volume to achieve complete coverage of foliage. Reapply Trilogy® every 7 - 21 days as needed for adequate control. Larger plants will require higher amounts of water to obtain good coverage.

**POME (DECIDUOUS FRUITS) AND NUTS**

**FUNGICIDE USE:** Apply Trilogy® at a rate of 1.0% in 25 - 100 gallons of water per acre or 0.5 quarts Trilogy® in a minimum of 5 gallons of water per acre for low volume application. Apply no more than 2.5 gallons of Trilogy® per acre in solution per application. Repeat applications every 7 - 14 days.

**MITICIDE USE:** Use Trilogy® at a rate of 1.0 - 2.0% in 25 - 100 gallons of water per acre or 0.5 quarts Trilogy® in a minimum of 5 gallons of water per acre for low volume application. Apply no more than 2 gallons of Trilogy® per acre per solution. Apply at first sign of pests or pest damage. Repeat application as needed for adequate control every 7 - 21 days. Do not apply more than 5 gallons Trilogy® per acre, per application.

**Walnuts:** Avoid spraying after husk split.

**CITRUS, POME, STONE, AND TROPICAL FRUITS**

**Crops** (including but not limited to)

Apples	Figs	Papayas
Apricots	Grapefruits	Passion fruit
Avocados	Guavas	Peaches
Bananas	Jujubes	Pears
Calamondin	Kiwifruit	Oriental pears
Cherries	Kumquats	Pineapples
Barbados cherries	Lemons	Plantains
Sour cherries	Limes	Plums
Sweet cherries	Loquats	Pomegranates
Cherimoya	Lychee	Prunes
Citrus citron	Mangoes	Pummelos
Citrus hybrids	Mandarins	Quinces
Coconuts	Satsuma mandarins	Tangelos
Crabapples	Nectarines	Tangerines
Dates	Olives	
Feijoa	Oranges	

**CUCURBITS**

Refer to specific application instructions found directly below the heading **Agricultural Use Directions.**

**Crops** (including but not limited to)

Balsam pears (bitter melons)	Honey balls
Cantaloupes	Melons (incl. hybrids)
Casaba	Honeydew melons
Chinese waxgourds	Muskmelons
Citron melons	Persian melons
Crenshaw	Pumpkins
Cucumbers	Squashes
Gherkins	Watermelons (incl. hybrids)
Gourds	Zucchini

**SMALL FRUITS AND BERRIES**

Refer to specific application instructions found directly below the heading **Agricultural Use Directions.**

**Crops** (including but not limited to)

Blackberries	Grapes
Blueberries	Huckleberries
Boysenberries	Loganberries
Cranberries	Olallie berries
Currants	Raspberries (black & red)
Dewberries	Strawberries
Elderberries	Youngberries
Gooseberries	

**NUTS**

**Crops** (including but not limited to)

Almonds	Filberts
Beech nuts	Hickory nuts
Brazil nuts	Japanese horse chestnuts
Butternuts	Macadamia nuts
Cashews	Pecans
Chestnuts	Pistachios
Chinquapins	Walnuts

**BULB, COLE AND LEAFY VEGETABLES**

Refer to specific application instructions found directly below the heading **Agricultural Use Directions.**

**Crops** (including but not limited to)

Arugula	Garlic
Broccoli	Greens
Broccoli raab	Collard greens
Chinese broccoli (Gai Ion)	Mustard greens
Brussels sprouts	Rape greens
Cabbage (head & leaf)	Kale
Chinese cabbage (Bok choy, Napa)	Kohlrabi
Chinese mustard cabbage (Gai choy)	Leek
Cauliflower	Lettuce (head & leaf)
Celery	Low-bok
Celtuce	Onions
Chervil	Orach
Chicory	Parsley
Red chicory	Purslane
Cilantro	Raddichio
Collards	Rappini
Corn salad	Rhubarb
Cress	Shallots
Watercress	Spinach
Daikon	Chinese Spinach (Amaranth, Tampala)
Endive	Swiss chard
Fennel	Turnip tops

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**LEGUME AND FRUITING VEGETABLES**

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Refer to specific application instructions found directly below the heading **Agricultural Use Directions.**

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**Crops** (including but not limited to)

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Beans	Peanuts
Broad beans	Pepinos
Calabaza	Peppers
Chickpeas	Pigeon peas
Eggplants	Snow peas
Ground cherries	Soybeans
Guar	Tomatillos
Lentils	Tomatoes
Peas	

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**ROOT AND TUBER VEGETABLES**

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Refer to specific application instructions found directly below the heading **Agricultural Use Directions.**

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**Crops** (including but not limited to)

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Artichokes	Potatoes
Beets	Sweet potatoes
Cardone	Radishes
Carrots	Rutabaga
Cassava	Taro (Dasheen)
Ginger	Turmeric
Ginseng	Turnips
Horseradish	Yams
Parsnips	Yam beans

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**HERBS AND SPICES**

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Refer to specific application instructions found directly below the heading **Agricultural Use Directions.**

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**Crops** (including but not limited to)

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Anise	Marigold
Balm	Marjoram
Basil	Mint
Borage	Nasturtium
Camomile	Pennyroyal
Caraway	Peppermint
Catnip	Rosemary
Celery	Rue
Chives	Sage
Coriander	Savory
Cumin	Spearmint
Curry leaf	Sweet bay
Dandelion	Tarragon
Dill	Thyme
Fennel	Wintergreen

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**VEGETABLE, CEREAL GRAINS AND OTHER MISCELLANEOUS CROPS**

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**Crops** (including but not limited to)

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Acerola	Kinep
Alfalfa	Mushrooms
Araacaga (Apio)	Nispero
Asparagus	Oats
Barley	Okra
Breadfruit	Quenepa
Buckwheat	Rice
Canola	Safflower
Coffee	Seagrapes
Coriander	Sesame
Corn	Sorghum
Popcorn	Soursup (Quanabanas)
Sweet corn	Star apples
Cotton	Sugarcane
Hops	Sunflowers
Jicama	Tobacco
Jojoba	Wheat

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**Pest Control**

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Aphids  
Mealybugs  
Mites  
Rust mites  
Spider mites  
Scales (Soft scale)

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**Suppression**

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Whiteflies  
Thrips

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**Diseases**

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Alternaria  
Anthracnose  
Early blight  
Leaf blight  
Botrytis  
Greasy spot  
Leaf Spot  
Downy mildew  
Post-bloom fruit drop  
Powdery mildew  
Molds  
Scabs  
Rusts  
Shothole

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**STORAGE AND DISPOSAL**

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

**Pesticide Storage:** Keep in original container. Store in a dry place, away from direct sunlight, feed, or foodstuffs. Keep container tightly sealed when not in use. Do not store below 40°F (4°C).

**Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on-site or 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 by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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**WARRANTY**

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Certis USA, L.L.C. warrants that the material contained herein conforms to the description on the label and is reasonably fit for the purposes referred to in the directions for use. Timing and method of application, weather, watering practices, nature of soil, the insect problem, condition of the crop, incompatibility with other chemicals not specifically recommended, and other influencing factors in the use of this product are beyond the control of the seller. Buyer assumes all risks of use, storage or handling of this material not in strict accordance with directions given herein. NO OTHER EXPRESS OR IMPLIED WARRANTY OF THE FITNESS OR MERCHANTABILITY IS MADE.

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