

70051-2

9/23/2014

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

SEP 23 2014

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

Christine A. Dively  
Certis USA, LLC  
9145 Guilford Road  
Suite 175  
Columbia, MD 21046

Subject: Response to Agency letter requesting product performance data on your product.  
Neem Oil 70%  
EPA Reg. No.: 70051-2  
Your submission dated August 4, 2014  
Decision Number: 476987

Dear Ms. Dively:

The Biopesticides and Pollution Prevention Division is in receipt of your response to the Agency letter dated December 12, 2013 that requested product performance (efficacy) data on your product. The Agency letter was in response to your initial application for Notification under PR Notice 98-10 dated March 25, 2013. The Agency has reviewed your information submitted under cover letter dated August 4, 2014. The results of this review are described in detail in the Confidential Attachment to this letter.

Based on the results of the review, the Agency has moved forward with the review of your Notification under PR Notice 98-10 dated March 25, 2013 and it has been determined that the action requested falls within the scope of PR Notice 98-10. Our records have been duly noted and the label submitted with the application has been stamped "Notification Accepted" and will be placed accordingly in our records. Two (2) copies of final printed labeling must also be submitted to the Agency before your product, as modified, may be sold or distributed [PR Notice 82-2 and 40 CFR 156.10(a)(6)]

If you have any questions concerning this action, please feel free to contact Mr. Colin Walsh at (703) 308-0298 or via email at [walsh.colin@epa.gov](mailto:walsh.colin@epa.gov).

Sincerely,

Linda A. Hollis, Chief  
Biochemical Pesticides Branch  
Biopesticides and Pollution  
Prevention Division (7511P)

CONCURRENCES

SYMBOL	Attachment	7511P					
SURNAME		Walsh					
DATE		9/15/14					

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Please read instructions on reverse before completing form.

Form Approved, OMB No. 2070-0080



United States  
Environmental Protection Agency  
Washington, DC 20460

<input type="checkbox"/>	Registration
<input type="checkbox"/>	Amendment
<input checked="" type="checkbox"/>	Other

OPP Identifier Number

### Application for Pesticide - Section I

1. Company/Product Number 70051-2	2. EPA Product Manager Hollis	3. Proposed Classification <input type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Neem Oil 70%	PM# Blochemical Br.	
5. Name and Address of Applicant (Include ZIP Code) Certis U.S.A. L.L.C. 9145 Guilford Road, Suite 175 Columbia, Maryland 21046 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

### Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____	<b>Notification Accepted</b> Date: <b>SEP 23 2014</b>
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.	
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.	

**Explanation:** Use additional page(s) if necessary. (For section I and Section II.)  
 Additional container handling statements per PR Notice 2007-4 and minor text (previously on accepted label) placement revision on label  
 Reviewer: *C. Walsh*

### Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input checked="" type="checkbox"/> Metal	<input type="checkbox"/> Plastic
				<input type="checkbox"/> Glass	<input type="checkbox"/> Paper
				<input type="checkbox"/> Other (Specify) _____	
* Certification must be submitted		If "Yes" Unit Packaging wgt.	No. per container	If "Yes" Package wgt	No. per container
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 2.5gal/53gal/250gal		5. Location of Label Directions <input type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled			<input type="checkbox"/> Other _____		

### Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Christine A. Dively	Title Director of Reg. Affairs	Telephone No. (Include Area Code) 301-483-3806
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped)
2. Signature <i>Christine A. Dively</i>	3. Title Director of Reg. Affairs	
4. Typed Name Christine A. Dively	5. Date March 25, 2013	

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# Master Label/ Sublabel A - Commercial AG

Notification Accepted

Date: SEP 23 2014

Reviewer: C. Walsh

## Neem Oil 70%

**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**



<b>ACTIVE INGREDIENT:</b>	
Clarified Hydrophobic Extract of Neem Oil .....	70%
<b>OTHER INGREDIENTS</b> .....	30%
<b>TOTAL</b> .....	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.:

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

See inside panels for Additional Precautionary Statements or See inside panels for Additional Precautionary Statements, Directions for Use, Storage and Disposal Statements, and WARRANTY

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

**ICERTIS**

### 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.

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## 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. Neem Oil 70% 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

Neem Oil 70% 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.

#### Landscape and Nursery Ornamentals

Neem Oil 70% 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 Neem Oil 70% at a rate of 1:100 when spraying as a preventative for outdoor applications. Under

extreme outdoor conditions, apply Neem Oil 70% 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 Neem Oil 70% 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 Neem Oil 70% 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 Neem Oil 70% 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	

### Management of Turf Diseases

Spray Target	Concentration	Spray Interval	Precautions
Snow Mold	1:100-1:500 (1.0%-2.0%)	14 days	In Fall before first snow
Dollar Spot	1:100-1:200 (1.0%-0.5%)	7-14 days	At first sign of disease
Brown Patch	1:100-1:200 (1.0%-0.5%)	7-14 days	At first sign of disease

### 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 Neem Oil 70% 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

Neem Oil 70% 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 Neem Oil 70% after bloom on table grapes or following bunch closure on wine grapes. Do not use Neem Oil 70% after pit hardening on stone fruit.

Use care when applying near streams, ponds, lakes, or other bodies of water. Do not apply Neem Oil 70% when weather conditions favor drift or when the likelihood of runoff is high.

- Apply Neem Oil 70% by conventional, low volume, and aerial application equipment.

**APPLICATION INSTRUCTIONS**

**Ground Application:** Apply Neem Oil 70% 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	Neem Oil 70%	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 Neem Oil 70% for 0.5% Solution	Gallons of Neem Oil 70% for 1.0% Solution	Gallons of Neem Oil 70% for 1.5% Solution	Gallons of Neem Oil 70% 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.

**AGRI CULTURAL USE DIRECTIONS (continued)**

**For Diseases:** Apply Neem Oil 70% 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 Neem Oil 70% every 7-14 days until threat of disease is over. Use Neem Oil 70% in rotation with other fungicides to increase the spectrum of control.

**For Mites:** For best results, apply Neem Oil 70% in sufficient amounts of water to achieve complete coverage. Neem Oil 70% 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% Neem Oil 70%. Reapply Neem Oil 70% every 7-21 days until pressure is over.

**For Insects:** For best results, apply Neem Oil 70% at 1.0-2.0% in sufficient amounts of water to achieve complete coverage. Neem Oil 70% 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 Neem Oil 70% 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 Neem Oil 70% 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:** Neem Oil 70% 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 Neem Oil 70% in a tank mix combination.* Avoid tank mixes with Morestan, Caplan, Sulfur, Bravo, Echo, chlorothalonil or other chemically similar products as unpredictable results or leaf burn may occur.

**CITRUS**

Use Neem Oil 70% 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 Neem Oil 70% in a minimum of 5 gallons of water per acre for low volume applications. Do not apply more than 2.5 gallons of Neem Oil 70% per acre, per application.

Reapply Neem Oil 70% every 7-14 days until threat of disease is over.

For control of Alternaria and Greasy Spot, apply Neem Oil 70% 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 Neem Oil 70% 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 Neem Oil 70% in a minimum of 5 gallons of water per acre for low volume application. As a dormant oil spray, use Neem Oil 70% as a 2% solution or 1 quart Neem Oil 70% minimum per acre. Do not apply more than 5 gallons of Neem Oil 70% per acre, per application.

**STONE AND TROPICAL FRUITS**

**FUNGICIDE USE:** Apply Neem Oil 70% at a rate of 1.0% in 25-200 gallons of water for high volume applications or 0.5 gallons Neem Oil 70% in a minimum of 5 gallons of water per acre for low volume application. Reapply Neem Oil 70% every 7-14 days until threat of disease is over.

**MITICIDE USE:** Use Neem Oil 70% 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

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needed for adequate control every 7-21 days. Apply a 1.0-2.0% solution of Neem Oil 70% for high volume application or a minimum of 1 quart Neem Oil 70% in a minimum of 5 gallons of water per acre for low volume application. Do not apply more than 5 gallons of Neem Oil 70% per acre, per application.

Do not use Neem Oil 70% after pit hardening on stone fruit.

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

Apply Neem Oil 70% at the rate of 0.5%- 1.0% in 25-100 gallons of water per acre or 2 pints Neem Oil 70% 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 Neem Oil 70% per acre, per application. Larger plants will require higher amounts of water to obtain good coverage. For mushrooms, apply Neem Oil 70% 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 Neem Oil 70% at a rate of 0.5%-2.0% in 25- 100 gallons of water per acre or 2 pints Neem Oil 70% in a minimum of 5 gallons of water per acre for low volume application. Apply no more than 2 gallons Neem Oil 70% per acre in solution per application. Apply in a solution of sufficient volume to achieve complete coverage of foliage. Reapply Neem Oil 70% 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 Neem Oil 70% at a rate of 1.0% in 25 -100 gallons of water per acre or 0.5 quarts Neem Oil 70% in a minimum of 5 gallons of water per acre for low volume application. Apply no more than 2.5 gallons of Neem Oil 70% per acre in solution per application. Repeat applications every 7 - 14 days.

**MITICIDE USE:** Use Neem Oil 70% at a rate of 1.0-2.0% in 25 -100 gallons of water per acre or 0.5 quarts Neem Oil 70% in a minimum of 5 gallons of water per acre for low volume application. Apply no more than 2 gallons of Neem Oil 70% 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 Neem Oil 70% 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 ton)	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
Endive	(Amaranth, Tampala)
Fennel	Swiss chard
	Turnip tops

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**LEGUME AND FRUITING VEGETABLES**

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

Crops (including but not limited to)

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

**ROOT AND TUBER VEGETABLES**

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

Crops (including but not limited to)

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

**HERBS AND SPICES**

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

Crops (including but not limited to)

Anise	Marigold
Balm	Ma oram
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

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

Crops (including but not limited to)

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 (Quanabanos)
Sweet corn	Star apples
Cotton	Sugarcane
Hops	Sunflowers
Jicama	Tobacco
Jojoba	Wheat

Pest Control	Suppression	Diseases	
Aphids	Whiteflies	Alternaria	Molds
Mealybugs	Thrips	Anthracnose	Scabs
Mites		Early blight	Rusts
Rust mites		Leaf blight	Shothole
Spider mites		Botrytis	
Scales		Greasy spot	
(Soft scale)		Leaf Spot	
		Downy mildew	
		Post-bloom fruit drop	
		Powdery mildew	

**WARRANTY**

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.**

Kocide® is a registered trademark of Griffin L.L.C.  
 Champ® is a registered trademark of Agrotol Chemical Products  
 Morestan® is a registered trademark of Bayer Inc.  
 Caplan® is a registered trademark of Drexel Chemical Company  
 Bravo® is a registered trademark of Syngenta Crop Protection, Inc.  
 Echo® is a registered trademark of Sipcam Agro USA, Inc.

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### STORAGE AND DISPOSAL

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 Handling:** Nonrefillable container. Do not reuse or refill this container.

~~for containers equal to or less than 5 gallons-~~

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 1/4 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, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

~~for containers greater than 5 gallons-~~

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Then offer for recycling, if available, 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.

~~for 250-gallon refillable containers-~~

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

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# Master Label/ Sublabel B - Ornamental Neem Oil 70%

**FUNGICIDE/MITICIDE/INSECTICIDE**

For Indoor/Outdoor Use On Ornamental Flowering Plants, Trees, Shrubs, Foliage,  
Vegetables, and Fruit Grown in: Nurseries, Greenhouses, Other Covered Structures,  
Interiorscapes, and Landscapes.  
Controls Fungal Diseases Including Black Spot, Mildews, Rusts, Scab and Insect/Mite 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.

Net Contents: 2.5 Gallons  
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.

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

Lot No.:

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

### 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.

### 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.

#### 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.

#### 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.

#### 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.

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## DIRECTIONS FOR USE

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

Neem Oil 70% is a broad spectrum fungicide of certain diseases and controls mites in citrus, deciduous fruits and nuts, vegetables and other miscellaneous crops. Use care when applying near streams, ponds, lakes, or other bodies of water. Do not apply Neem Oil 70% when conditions favor drift or when the likelihood of runoff is high. Do not apply this product through any type of irrigation system.

### General Information

Thorough coverage is necessary to provide good disease and insect/mites control. Neem Oil 70% prevents fungal attack of plant tissue preventing and controlling black spot on roses, anthracnose, rust and powdery mildew and offers contact activity to mite pressure on the plants. Neem Oil 70% kills eggs, larvae and adult insects.

Shake well before using. For best results maintain constant agitation in spray equipment. For optimal performance, do not mix with cold water (less than 45° F). Use spray solution within several hours of preparation for maximum effectiveness. Do not store diluted solution for later use. As with other oil-based products, care should be exercised in timing applications to early morning/late evening to minimize the potential for leaf burn. Avoid excessive runoff of spray material for maximum control.

Do not apply to known sensitive plant species, such as impatiens flowers, fuchsia flowers, hibiscus flowers, some rose flowers, ornamental olive trees or some carnations varieties, without prior testing. Do not apply to wilted or otherwise stressed plants, or to newly transplanted materials prior to root establishment. Use with care on plants with tender tissue. Check for leaf burn in small-scale trials prior to use.

When used in conjunction with beneficial insects, it is recommended that a small trial be conducted to assure compatibility before using on a large scale.

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

### AGRICULTURAL USE REQUIREMENTS (continued)

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.

**TANK MIXING:** Neem Oil 70% 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 Neem Oil 70% in a tank mix combination.* Avoid tank mixes with Morestan, Caplan, Sulfur, Bravo, Echo, chlorothalonil or other chemically similar products as unpredictable results or leaf burn may occur.

## GREENHOUSE, LANDSCAPE, AND NURSERY USE INSTRUCTIONS

### FUNGICIDE USE

#### ORNAMENTAL DISEASE CONTROL

Neem Oil 70% 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.

Landscape, Greenhouse and Nursery Ornamentals Neem Oil 70% 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 Neem Oil 70% at a rate of 1:100 when spraying as a preventative for outdoor applications. Under extreme outdoor conditions, apply Neem Oil 70% at the 1:50 application rate (see APPLICATION INSTRUCTIONS tables for detailed use rates). This will provide the necessary control under the extreme outdoor conditions. When using Neem Oil 70% 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.

#### Greenhouse

When Neem Oil 70% is used as a preventative, the lower rate (1:200) will provide adequate control for most greenhouse situations. If disease pressure is evident, use the higher rate (1:100). Make applications for disease prevention on a 7-14 day schedule depending on the anticipated severity of the disease pressure. To control existing disease, apply Neem Oil 70% on a 7-Day schedule until the disease pressure is eliminated. Use a 14-Day schedule to prevent disease pressure from returning. NOTE: Spray greenhouse roses only in a rotation program, which includes Neem Oil 70% once every 4 weeks.

#### Landscape Ornamentals

In outdoor landscape applications, apply Neem Oil 70% at rates of 1:50- 1:100 rate (see APPLICATION INSTRUCTIONS tables for detailed use rates). This will provide the necessary control under the extreme outdoor conditions. When using Neem Oil

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70% 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

**MITICIDE-INSECTICIDE USE**

**For Mites:** For best results, apply Neem Oil 70% in sufficient amounts of water to achieve complete coverage. Neem Oil 70% is most effective when applied before mites or eggs are present in large numbers. Apply at a rate of 0.5% - 2.0%. Do not exceed 1.0% in the greenhouse. Reapply every 7-21 days until pressure is over.

**For Insects:** For best results, apply Neem Oil 70% at 0.5% - 2.0% (not to exceed 1.0% in the greenhouse) in sufficient amounts of water to achieve complete coverage. Neem Oil 70% 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.

**CROPS (including but not limited to) BY TRANSPLANT TYPE**

**CUCURBIT TRANSPLANTS**

Refer to USE INSTRUCTIONS for specific application instructions.

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

**BULB, COLE AND LEAFY VEGETABLE TRANSPLANTS**

Refer to USE INSTRUCTIONS for specific application instructions.

Arugula	Garlic
Broccoli	Greens
Broccoli raab	Collard greens
Chinese broccoli (Gai lan)	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, Tapaia)
Endive	Swiss chard
Fennel	Turnip tops

**LEGUME AND FRUITING VEGETABLE TRANSPLANTS**

Refer to USE INSTRUCTIONS for specific application instructions.

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

**ROOT AND TUBER VEGETABLE TRANSPLANTS**

Refer to USE INSTRUCTIONS for specific application instructions.

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

**HERBS AND SPICES TRANSPLANTS**

Refer to USE INSTRUCTIONS for specific application instructions.

Anise	Marigold
Balm	Mrujoram
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

**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
Potted Plants (Greenhouse)	1:100 - 1:200 (1.0% - 0.5%)	14 days	Trial first on open blooms
Flowering Bench Crops (Greenhouse)	1:100-1:200 (1.0% - 0.5%)	7- 14 days	Trial first on open blooms - not suggested for cut roses Do not use on poinsettias.
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	

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MANAGEMENT OF TURF DISEASES			
SPRAY TARGET	CONCENTRATION	SPRAY INTERVAL	PRECAUTIONS
Snow Mold	1:100-1:500 (1.0% - 2.0%)	14 days	In fall before first snow
Dollar Spot	1:100 - 1:200 (1.0% - 0.5%)	7-14days	At first sign of disease
Brown Patch	1:100-1:200 (1.0% - 0.5%)	7- 14 days	At first sign of disease

**INSECTICIDE/MITICIDE USE**

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

Use Neem Oil 70% 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.

**MIXING INSTRUCTIONS**

Add Neem Oil 70% 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 Neem Oil 70% 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.

**STORAGE AND DISPOSAL**

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 Handling:** Nonrefillable container. Do not reuse or refill this container.

*- for containers equal or less than 5 gallons-*

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 1/4 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, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

*- for containers greater than 5 gallons-*

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling, if available, 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.

**WARRANTY**

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. Kocide® is a registered trademark of Griffin LLC. Champ® is a registered trademark of Agtrol Chemical Products. Morestan® is a registered trademark of Bayer Inc. Caplan® is a registered trademark of Drexel Chemical Company. Bravois® is a registered trademark of Syngenta Crop Protection, Inc. Echo® is a registered trademark of Sipcam Agro USA, Inc

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# Master Label/ Sublabel C - Homeowner Neem Oil 70%

**FUNGICIDE/MITICIDE/INSECTICIDE**

*For use on roses, flowers, houseplants, ornamental trees and shrubs, fruits, nuts, and vegetables, home lawns  
For use in and around the home and home garden.*

*Controls blackspot, powdery mildew, rust, needle rust, downy mildew, spider mites, aphids, whiteflies, twig and  
tip blight, anthracnose, scab and flower, botrytis, alternaria, turf diseases, and other insect pests.*

*Can be Used Up to Day of Harvest*

## For Organic Gardening



<b>Active Ingredient:</b>	
Clarified Hydrophobic Extract of Neem Oil.....	70%
Other Ingredients:.....	30%
Total.....	100%

**Net Contents:**  
32 ounces (1 quart) (0.946 liters)

EPA Reg. No. 70051-2  
EPA Est. No. 70051-CA-001

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

See inside panels for additional precautionary statements.

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

## CERTIS

### 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.

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

treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.

### 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.

### DIRECTIONS FOR USE

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

### GENERAL INFORMATION

- Defends your roses against insects, diseases, and mites
- Do not add adjuvants (spreaders, stickers, extenders, etc.) to Neem Oil 70%
- Stops powdery mildew in 24 hours.
- Kills eggs, larvae, and adult insects.
- Shake well before using.
- Prevents and controls black spot on roses, anthracnose, rust and powdery mildew.
- Do not apply to wilted or otherwise stressed plants, or to newly transplanted materials prior to root establishment.

### 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. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

**ENVIRONMENTAL HAZARDS:** Do not apply directly to water. Do not contaminate water when disposing of equipment washwaters or rinsate. To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. 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

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May also be used as a dormant or delayed dormant spray to control overwintering eggs of various insects on fruit and shade trees, shrubs, roses, and other ornamentals and vegetables. **Spray to visibly wet or until all plant surfaces are completely wet.**

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.

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.

Can be used as a leaf polish on hardy plants.

### FUNGICIDE USE

For use on Fruits, Vegetables, Herbs, Spices, Roses, Houseplants, Flowers, Trees and Shrubs, Home Lawns

#### Management of Turf Diseases

Neem Oil 70% may be used on all turf such as Kentucky bluegrass, perennial ryegrass, turf type tall fescue, Bermudagrass, zoysiagrass, and St. Augustinegrass around the home. Refer to table for detailed application rates.

#### Management of Turf Diseases

Spray Target	Concentration	Spray Interval	Precautions
Snow Mold	1:100-1:500 (1.0%-2.0%)	14 days	In Fall before first snow
Dollar Spot	1:100-1:200 (1.0%-0.5%)	7-14 days	At first sign of disease
Brown Patch	1:100-1:200 (1.0%- 0.5%)	7-14 days	At first sign of disease

#### Application Instructions

Neem Oil 70% is an effective fungicide for the prevention and control of various fungal diseases including powdery mildew, black spot, downy mildew, anthracnose, rust, leaf spot, botrytis, needle rust, scab and flower, twig and tip blight, and alternaria. As a preventative, apply Neem Oil 70% on a 7 to 14 day schedule until disease development is no longer present. To control disease already present, apply Neem Oil 70% on a 7 day schedule until disease pressure is eliminated. Then continue spraying on a 14 day schedule to prevent the disease from reoccurring. To prevent rust leaf spot diseases, anthracnose and scab, begin applications at the first sign of spring budding. To prevent powdery mildew, apply in mid-summer or when disease is first detected. Continue applications until disease pressure no longer exists.

#### Mixing Instructions

Mix Neem Oil 70% at the rate of 2 tablespoons (1 fluid ounce) per gallon of water. Mix 0.5 tablespoons (0.25 fluid ounces) of Neem Oil 70% per quart of water. Thoroughly mix solution and spray all plant surfaces (including undersides of leaves) until completely wet. Frequently mix solution as you spray.

#### Hose End Sprayer Use Instructions –For optimal performance, do not mix with cold water (less than 34° F.)

The sprayer attached to the container is ready-to-use. Simply attach to your garden hose and follow these instructions:

1. Insure the large, round "on/off" knob is set to OFF.
2. Turn on water.
3. PUSH IN small knob near front of sprayer. This allows water and product to mix.

4. Hold sprayer and container level and point towards area to be sprayed.
5. Turn large, round "on/off" knob to ON.
6. Begin spraying product evenly over area you wish to treat.
7. Spray to visibly wet.
8. To stop spraying, turn large, round "on/off" knob to OFF.
9. PULL OUT small knob near front of sprayer. This prevents product from mixing with water.
10. Turn off water at faucet. Relieve water pressure in the hose by turning large, round "on/off" knob ON until water pressure is reduced.
11. Turn the knob to OFF for storage of unused product/and/or disposal of empty container.

Covers 5,000 sq. ft. or equivalent per 32 oz. container size.

#### Alternate Hose-End Sprayer Use Directions

##### Optional Hose End Sprayer Use Instructions

The sprayer attached to the container is ready-to-use. Simply attach to your garden hose and follow these instructions:

1. Connect sprayer to hose.
2. Turn on water.
3. To begin spraying, point nozzle in the direction you want to spray.
4. Bend plastic tab back and turn knob back to ON position.
5. Spray evenly to area being treated.
6. To stop spraying, turn knob to OFF position.
7. Turn off water.
8. Relieve water pressure by bending plastic tab back and turning knob to ON position until water slows to a drip. Then turn knob back to OFF position.
9. Disconnect sprayer from hose.

**INSECTICIDE/MITICIDE USE:** For use on FRUITS, VEGETABLES, HERBS, SPICES, ROSES, HOUSEPLANTS, FLOWERS, TREES, AND SHRUBS

#### APPLICATION INSTRUCTIONS:

Apply Neem Oil 70% at first sign of insects/mites. For control of aphids, spider mites, scale, whiteflies, beetles, leafrollers, and other insect pests. Neem Oil 70% is most effective when applied every 7 to 14 days. For heavy insect populations, spray on a 7-day schedule.

#### MIXING INSTRUCTIONS:

Mix Neem Oil 70% at the rate of 2-4 tablespoons (1-2 fluid ounces) per gallon of water. Mix 0.5 -1.0 tablespoons (0.25-0.50 fluid ounces) per quart of water. Thoroughly mix solution and spray all plant surfaces (including underside of leaves) until completely wet. Frequently mix solution as you spray.

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## STORAGE & DISPOSAL

**Pesticide Storage:** Keep in original container. Store away from direct sunlight, feed, or foodstuffs. Keep container tightly sealed when not in use. Keep from freezing.

### **Pesticide and Container Disposal:**

If empty: Non-refillable container. Do not reuse or refill this container. Place in trash or offer for recycling if available.

If partly filled: Call your local solid waste agency or 1-800-CLEANUP for disposal instructions. Never place unused product down any indoor or outdoor drain.

~~for containers greater than 5 gallons-~~ Non-refillable container. Do not reuse or refill this container.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Then offer for recycling, if available, 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.

### **Alternate Hose End Spray Use Directions**

New[[Easy [to use]] One touch [hand] spray • [No [twisting][pulling] [bending][turning][pushing]], Just [[pull] [squeeze]][the trigger] and spray • No [complicated] [hard-to-use] levers [or dials] • Easy on/off-- spray [only] where you want • [Simply] release trigger [ so you don't spray unwanted areas] • Easy Action [hose end] sprayer • Just squeeze [and][to] spray

### **USING THE READY SPRAY NOZZLE** (Optional subheading)

1. Shake container well before using.
2. Attach a garden hose to the Ready spray nozzle. For first time use remove the safety tab above the trigger by pushing to the left or right until the tab breaks free.
3. Turn on water at faucet. Extend hose to the farthest area to be treated and work back toward the faucet so you do not come into contact with the treated area.
4. To BEGIN spraying point nozzle toward treatment site and squeeze the trigger to the fully on position. Water will automatically mix with the product.
5. Spray until wet to control listed weeds. Walk at a steady pace while spraying using an even sweeping motion, slightly overlapping treated areas.
6. To STOP spraying release the trigger Turn water off at faucet. To relieve pressure before removing nozzle squeeze the trigger until water stops spraying.
7. To STORE unused product make sure the trigger is in the closed position. Place in a cool area away from heat, sunlight or open flame.]

### **WARRANTY**

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. To the extent consistent with applicable law, Buyer assumes all risks of use, storage or handling of this material not in strict accordance with directions given herein. NO OTHER EXPRESSOR IMPLIED WARRANTY OF THE FITNESS OR MERCHANTABILITY IS MADE.

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The following claims and product information may or may not be presented on the product's label and labeling:

- The \_\_\_\_\_ Promise-Satisfaction guaranteed or your money back!
- If you apply \_\_\_\_\_ brand \_\_\_\_\_ as directed and you are not completely satisfied, send proof of purchase price from this package and the original cash register receipt to the address below. We will refund the purchase price you paid.
- Questions or Comments? Call \_\_\_\_\_ or visit our website at \_\_\_\_\_.
- 3 Garden Products in One!