10051-2

6/4/2010

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

JUN 04 2010

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

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

RE: Product Name: Neem Oil 70%
 EPA Reg. No: 70051-2
 Application for Label Notification Dated May 18, 2010 to add optional language and update general information section per PR Notice 98-10

Dear Ms.Dively:

The Biopesticides and Pollution Prevention Division is in receipt of your application for Notification under Pesticide Registration (PR) Notice 98-10 dated above. A preliminary screen of this request has been conducted for its applicability under PR Notice 98-10 and it has been determined that the action(s) requested falls within the scope of PR Notice 98-10. Our records have been duly noted, and the label submitted with this application has been stamped "Notification Accepted" and will be placed accordingly in our records.

If you have any questions concerning this action, please feel free to contact Ms. Menyon Adams at (703) 347-8496 or email at <u>adams.menyon@epa.gov.</u>

Sincerely,

# Linda Hollis

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

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Mease reed instructions or	reverse before complet	ting form.		Form Appr	oved.	OMB No. 20	70-0060	Print Form
€PA	Environmental	nited States Protection Ag ngton, DC 20460	ency		×	Registrat Amendrr Other		OPP Identifier Number
		Application for	Pestici	de - Sec	tion	1		
. Company/Product Numb 70051-2	or		<b>2. EPA</b> Linda	Product Man Hollis	eger			posed Classification
I. Company/Product (Nam Neem Oil 70%	e)		Bioch	<b>1  </b> emical Pesti	cides			None Restricted
5. Name and Address of A Certis USA, L.L.C. 9145 Guilford Road, Su Columbia, Maryland 2 <sup>°</sup>	ite 175		(b)(i), n to: EPA (	ny product i Reg. No	s sim		cal in cor	FIFRA Section 3(c)(3) mposition and labeling
		Sa	ction -	ict Name				
Amendment - Explain Resubmission in res Notification - Explain Explanation: Use eddition to add optional text and	sponse to Agency letter n below. 	y. (For section I and S		Agency lett "Me Too" / Other - Exp	er dat Applica Iain be	Notifi Notifi	cation	Accepted 04 2010 Ams
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		and the second	tion - I	v				
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l acknowledge that both under applicab		nisleading statement r	nay be pur	ishable by fir	e, acc ne or i	urate and com	00000000000000000000000000000000000000	6. Dete Application Received (Stamped)
4. Typod Name Christine A. Dively	A. Duie	5. Date	or of Reg. 8, 2010	AIIdIIS			υ ο υυτυυ	υ ζζζζζου ζζουζο ζουζο ζουζο

EPA Form 8570-1 (Rev. 8-94) Previous editions are obsolete.

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Notification: Optional Text and Clarification Language in General Information Section EPA Registration Number: 70051-2

Notification of label change per PR Notice 98-10. This notification is consistent with the guidance in PR Notice 98-10 and the requirements of EPA's regulations at 40CFR 156.10, 156.144, 156.146, and 156.156. No other changes have been made to the labeling or the Confidential Statement of Formula for this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if the amended label is not consistent with the requirements of 40 CFR section 156.10, 156.140, 156.144, 156.146, and 156.156, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

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Certis USA 9145 Guilford Road Suite 175 Columbia, MD 21046

(301) 604-7340 FAX (301) 604-7015 www.certisusa.com

# HAND – DELIVERED

May 18, 2010

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Ms. Linda Hollis, Chief Biochemical Pesticides Branch Biopesticides and Pollution Prevention Division (7504P) Office Pesticide Programs US Environmental Protection Agency

# Re: Neem Oil 70% EPA Registration Number 70051-2 Notification to Add Optional Language and Update General Information Section

Dear Ms. Hollis:

On behalf of Certis USA, L.L.C., I am submitting a Notification to add optional language to the GENERAL INFORMATION section of the Neem Oil 70% Homeowner label. This additional text has been highlighted in the product labeling.

Please do not hesitate to contact me if you have any questions about this submission. I can be reached by telephone at 301-483-3806 or by email at <u>cdively@certisusa.com</u>.

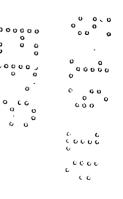
Thank you for your kind attention to this Notification submission. I look forward to the Agency's acceptance letter in the near future.

Sincerely,

Christeis A. Dively -

Christine A. Dively Director of Regulatory Affairs Certis USA

enclosure.



# MASTER LABEL

This master label bears directions for agricultural, commercial and homeowner use with various application rates specific to the associated container sizes

# Neem Oil 70% Fungicide/Miticide/Insecticide

# Sublabel A: Agricultural Uses Sublabel B: Commercial Greenhouse, Nurseries, Ornamentals Sublabel C: Homeowner Use

Alternate Brand Names: Trilogy, Triact 70EC, Trilogy PHC, Fertilome Rose, Flower & Vegetable Spray, Ferti-lome Triple Action Plus, Garden Safe Fungicide 3 Concentrate, UltraStop Fruit Tree 3-in-1 Concentrate, Concern From the Earth For the Earth Garden Defense Multi-Purpose Spray Concentrate

# Active Ingredient:

Clarified Hydrophobic Extract of Neem Oil	70.00%
Other Ingredients	30.00%
Total	100.00%

EPA Registration Number: 70051-2 EPA Establishment Number: 70051-CA-001

Manufactured by:

Certis U.S.A., L.L.C. 9145 Guilford Road, Suite 175 Columbia, Maryland 21046



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# Master Label / Sublabel A - Commercial AG



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

# 

# ACTIVE INGREDIENT:

Clarified Hydrophobic Extract of Neem Oil		
OTHER INGREDIENTS		)%
TOTAL	100	1%

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).

# KEEP OUT OF REACH OF CHILDREN CAUTION



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

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 p areas where surface water is presend of 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 expendented 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. 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

# 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 of 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 fercontrol.

# 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.

#### AGRICULTURAL 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, Captan, 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

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, POM	CITRUS, POME, STONE, AND TROPICAL FRUITS			
Crops	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 (inc	luding but not limited to)	
Blackberries	Grapes	
Blueberries	Huckleberries	
Boysenberries	Loganberries	
Cranberries	Olallie berries	
Currants	Raspberries (black & red)	
Dewberries	Strawberries	

Youngberries

Elderberries

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	Kohlrabi		
(Bok choy, Napa)	Leek		
Chinese mustard cabbage	Lettuce (head & leaf)		
(Gai choy)	Low-bok		
Cauliflower	Onions		
Celery	Orach		
Celtuce	Parsley		
Chervil	Purslane		
Chicory	Raddichio		
Red chicory	Rappini		
Cilantro	Rhubarb		
Collards	Shallots		
Corn salad	Spinach		
Cress	Chinese Spinach		
Watercress	(Amaranth, Tampala)		
Daikon	Swiss chard		
Endive	Turnip tops		
Fennel			

# LEGUME AND FRUITING VEGETABLES

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

Crops	(including	DULTIOU	nimed ic	77

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**.

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	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	

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



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

# 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. 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 tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Fill the order 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.

or for 250-gallon refillable containers:

**Refillable container.** Refill this container with pesticide only. Do no 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.

# 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 Agtrol Chemical Products Morestan® is a registered trademark of Bayer Inc. Captan® 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.

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

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:	
Total	

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

# KEEP OUT OF REACH OF CHILDREN CAUTION



# 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.

Lot No.:

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

# 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.

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/mite 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, Captan, 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 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 compete 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.		
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.

	1 11
Arugula Broccoli Broccoli raab Chinese broccoli (Gal Ion) Brussels sprouts Cabbage (head & leaf) Chinese cabbage (Bok choy, Napa) Chinese mustard cabbage (Gal choy) Cauliflower Celery Celtuce Chervil Chicory Red chicory Cilantro Collards Corn salad Cress Watercress	Garlic Greens Collard greens Mustard greens Rape greens Kale Kohlrabi Leek Lettuce (head & leaf) Low-bok Onions Orach Parsley Purslane Raddichio Rappini Rhubarb Shallots Spinach Chinese Spinach (Amaranth, Tampala)
Cress	Chinese Spinach
Watercress Daikon	(Amaranth, Tampala) Swiss chard
Endive	Turnip tops
Fennel	

# 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	



MANAGEMENT OF TURE 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 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. 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.

# 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<sup>®</sup> is a registered trademark of Griffin L.L.C. Champ<sup>®</sup> is a registered trademark of Agtrol Chemical Products Morestan<sup>®</sup> is a registered trademark of Bayer Inc. Captan<sup>®</sup> is a registered trademark of Drexel Chemical Company Bravo<sup>®</sup> is a registered trademark of Syngenta Crop Protection, Inc. Echo<sup>®</sup> is a registered trademark of Sipcam Agro USA, Inc. Master Label / Sublabel C - Homeowner

**Neem Oil**® 70%

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

Active Ingredient:	
Clarified Hydrophobic Extract of Neem Oil	70%
Other Ingredients:	
Total	

# KEEP OUT OF REACH OF CHILDREN CAUTION

See inside panels for additional precautionary statements.

# 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.

# 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.



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

Net Contents:

Manufactured by Certis USA, L.L.C.

9145 Guilford Road Suite 175

Columbia, MD 21046

32 ounces (1 quart) (0.946 liters)

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

# **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.
- For optimal performance, do not mix with cold water (less than 34°F).
- 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.

- •
- 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.
- 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**

Neern 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 apraying on a 14 day schedule to prevent the disease from reoccurring. To prevent rust leaf spot diseases, antracnose 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. 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

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.
- 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.
- Turn off water at faucet. Relieve water pressure in the hose by turning large, round "on/off" knob ON until water pressure is reduced.
- 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.

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. Thoroughly mix solution and spray all plant surfaces (including underside of leaves) until completely wet. Frequently mix solution as you spray.

# **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: Do not reuse 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.

## 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.