

70051-2

11/20/2007

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

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

NOV 20 2007

Subject: **Product Name: Neem Oil 70%**
 Reg. No: 70051-2
 Your Application of Notification dated August 24, 2007 proposing alternate
 directions for attaching container sprayer to garden hose.

Dear Ms. Dively:

The Biopesticides and Pollution Prevention Division (BPPD) is in receipt of the above referenced application (per PR Notice 98-10) notifying the Agency of proposed alternate directions and schematic for attaching container sprayer to garden hose for Neem Oil 70%. The alternate directions are:

Lawn and Garden Products, Inc.

Hose-End Sprayer Directions and Spray Nozzle Graphic

How To Use This Sprayer: Shake Container Well Before Getting Started.

1. Before you start, the blue flow switch should be in the "OFF" position, and the red flow switch should be in the up, "CLOSED" position.
2. Shake container well and attach it to your garden hose, while holding sprayer at waist level and pointing in a direction away from face and body.
3. Turn on the water from the faucet.
4. When you are ready to spray, turn the blue flow switch to "ON" position; turn red flow switch to the forward, "OPEN" position; and begin spraying.
5. When you are finished spraying or if you have to stop spraying at any time, turn the blue flow switch back to the "OFF" position and the red flow switch to the "CLOSED" position.
6. Turn off the water at the faucet.
7. Remove the container from the garden hose then rinse thoroughly and store according to storage instructions.

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We have determined that these revisions are **acceptable** via notification per PR Notice 98-10. Our records have been duly noted. The label submitted with this application has been stamped "Notification Received but not Reviewed." We will add your application package and related documents to the Agency's record for this product.

If you have questions, or need additional information about this decision, please contact: Cheryl Greene, 703 308 -0352, Email: greene.cheryl@epa.gov.

Sincerely,

Linda A. Hollis

Linda Hollis, Chief
Biochemical Pesticides Branch
Biopesticides and Pollution Prevention Division

3 8 12

FPL sent 8/22/07

Master Label / Sublabel A - Commercial AG

Neem Oil® 70%

FUNGICIDE/MITICIDE/INSECTICIDE

Complies With EPA
Accepted Labeling Dated 7/24/06
Reviewed By CP

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



FOR ORGANIC PRODUCTION

ACTIVE INGREDIENT:

Clarified Hydrophobic Extract of Neem Oil70%

OTHER INGREDIENTS30%

TOTAL100%

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

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

Net Contents:

EPA Reg. No. 70051-2

EPA Est. No. 70051-CA-001

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

Lot No.:

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

CERTIS

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

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

FIRST AID

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

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.

Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
Hot Line Number: 1-800-255-3924.

Personal Protective Equipment:

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

Applicators and other handlers must wear:

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

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

User Safety Recommendations:

Users should:

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

ENVIRONMENTAL HAZARDS

This product is hazardous to fish and aquatic invertebrates. For Terrestrial Uses: Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

BEE HAZARD

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

PHYSICAL AND CHEMICAL HAZARDS

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

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

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

GENERAL INFORMATION:

- Thorough coverage is necessary to provide good disease and mite control. 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. Do not use on poinsettias.
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.

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

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

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 Disposal: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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 risk 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/Echo® is a registered trademark of Syngenta Crop Protection, Inc.

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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, and Foliage Grown on Commercial Farms and Nurseries, Greenhouses and Landscapes.
Controls Fungal Diseases Including Black Spot, Mildews, Rusts, and Scab.
Can be Used Up to Day of Harvest

 **FOR ORGANIC PRODUCTION**

OMRI
Listed
Organic Materials Review Institute

Active Ingredient:

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

Other Ingredients:30%

Total100%

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.

Lot No.:

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

CERTIS

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

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

FIRST AID

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

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.

Call a poison control center or doctor for treatment advice. Have the product container or label with you when calling a poison control center or doctor, or going for treatment. Hot Line Number: 1-800-255-3924.

Personal Protective Equipment:

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

Applicators and other handlers must wear:

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

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

User Safety Recommendations:

Users should:

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

ENVIRONMENTAL HAZARDS

This product is hazardous to fish and aquatic invertebrates. For Terrestrial Uses: Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

BEE HAZARD

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

PHYSICAL AND CHEMICAL HAZARDS

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

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

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

General Information:

- Do not use Triact 70 EC on food crops.
- 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).
- 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.
- 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.
- Formulated for interiorscape use.
- 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.

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 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 Mofestan, 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 100-200 gallons of water, depending on the level of disease pressure. Use the lower rate (1:200) when spraying as a preventative in a greenhouse while the higher rate (1:100) is needed for outdoor applications. Determine the best rate for your particular situation.

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 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.

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 TURF DISEASES			
SPRAY TARGET	CONCENTRATION	SPRAY INTERVAL	PRECAUTIONS
Snow Mold	1:100 - 1:50 (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

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
Outdoor Flowering Plants	1:50 - 1:100 (2.0% - 1.0%)	7 - 14 days	Do not spray impatiens flowers. Do not use on poinsettias.
Outdoor Woody Plants	1:50 - 1:100 (2.0% - 1.0%)	14 days	

INSECTICIDE/MITICIDE USE

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

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 Disposal: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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.

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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

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:	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.

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**
- 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 45°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.
 - 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.

**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.

- 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.

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. 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.
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.

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 (102 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.