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

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

October 26, 2015

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

Subject: Labeling Notification per Pesticide Registration Notice (PRN) 2007-4 – To revise "Pesticide and Container Disposal" to read "Pesticide Disposal and Container Handling" on the residential use sublabel.
Product Name: Neemazad 1% EC
EPA Registration Number: 70051-104
Application Date: August 19, 2015
OPP Decision Number: 508272

Dear Ms. Dively:

The U.S. Environmental Protection Agency (EPA) is in receipt of your application for notification under Pesticide Registration Notice (PRN) 2007-4 for the above referenced product. The Biopesticides and Pollution Prevention Division (BPPD) has conducted a review of this request for its applicability under PRN 2007-4 and finds that the action requested falls within the scope of PRN-2007-4.

The labeling submitted with this application has been stamped "Notification" and will be placed in our records. Please be reminded that 40 CFR § 156.140(a)(4) requires that a batch code, a lot number, or other code identifying the batch of the product distributed and sold be placed on nonrefillable containers. The code/number may appear either on the label (and can be added by non-notification via PRN 98-10) or durably marked on the container itself. You must submit one (1) copy of the final printed labeling with the modifications.

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

If you have any questions, please contact Colin G. Walsh of my team by phone at (703) 308-0298 or via email at walsh.colin@epa.gov.

Sincerely,

Andrew C. Bryceland, Team Leader
Biochemical Pesticides Branch
Biopesticides and Pollution
Prevention Division (7511P)
Office of Pesticide Programs

Enclosure

**NOTIFICATION**

70051-104

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

10/26/2015

# NEEMAZAD 1% EC

**Insect Growth Regulator**
**(EPA Registration Number: 70051-104)**
**For Use on Crops, in Commercial Greenhouses and Nurseries and Use in Home Gardens, Interiorscapes**

## MASTER LABEL



## Ingredient Statement

**Active Ingredient**

| | |
|---|---|
| Azadirachtin | 1.0% |
| OTHER INGREDIENTS | 99.0% |
| TOTAL | 100.0% |

# Master Label

# Neemazad® 1% EC

## INSECT GROWTH REGULATOR

**Kills/repels a variety of insect pests including whiteflies, caterpillars, leafminers, aphids, and diamondback moths.**

FOR ORGANIC PRODUCTION

| | |
|---|---|
| **ACTIVE INGREDIENT:** | |
| Azadirachtin | 1.0% |
| **OTHER INGREDIENTS:** | 99.0% |
| **TOTAL:** | 100.0% |

This product contains 0.082 lb. of azadirachtin per U.S. gallon.

KEEP OUT OF REACH OF CHILDREN

**CAUTION**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail).

**SEE SIDE/BACK PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS AND FIRST AID**

**Net Contents: 2.5 Gallons**
EPA Reg. No. 70051-104
EPA Est. No. 44616-MO-01
Lot Number:

OMRI Listed

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

CERTIS

## Sublabel A: Agricultural Use

# Neemazad® 1% EC

**INSECT GROWTH REGULATOR**

**Kills/repels a variety of insect pests including whiteflies, caterpillars, leafminers, aphids, and diamondback moths.**

FOR ORGANIC PRODUCTION

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**SEE SIDE/BACK PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS AND FIRST AID**

**Net Contents: 2.5 Gallons**
EPA Reg. No. 70051-104
EPA Est. No. 44616-MO-01
Lot Number:

OMRI Listed
Organic Materials Review Institute

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

CERTIS

**PRECAUTIONARY STATEMENTS**
**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**
**CAUTION**
Harmful if absorbed through the skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

**FIRST AID**
**If in eyes:** Hold eyes 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.

**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 immediately 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 polyvinylchloride (PVC) or Viton.
- Shoes plus socks.
- Protective Eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not re-use them.

**USER SAFETY RECOMMENDATIONS**
Users Should:
- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing 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 washwaters or rinsate.

## 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.

For early entry into 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, wear:

- 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.
- Protective Eyewear

**NON-AGRICULTURAL USE REQUIREMENTS**

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. Keep unprotected persons out of treated areas until sprays have dried.

**GENERAL**

- Botanical Insecticide Concentrate.
- Kills larval stages of insects only.
- Not for use in food-handling establishments.
- Shake well before using.
- Spraying directly onto the pest and a longer duration of leaf wetting increases effectiveness. Apply in early to mid-morning or late afternoon.
- The pH of spray solution containing Neemazad® 1.0% EC must be kept between 3 and 8. Use spray solutions within several hours of preparation for maximum effectiveness. Do not store diluted solution for later use.
- Do not apply to wilted or otherwise stressed plants, or to newly transplanted material prior to root establishment. Do not apply to known spray sensitive plants without testing.
- Neemazad® 1.0% EC has been found to be compatible when used in conjunction with most beneficial insects. Conduct a small trial to assure compatibility before using on a large scale.
- For indoor and outdoor use.

**TANK MIXING**

Neemazad® 1.0% EC Botanical Agricultural Insecticide has been found to be compatible with most commonly used fungicides, insecticides, and fertilizers. Check physical compatibility first by using the correct proportion of products in a small jar test. Then, test tank-mix combinations for phytotoxicity on a sample of plants prior to use. This must be done with combinations used before as environmental conditions can alter the interaction between compounds. *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 Neemazad® 1.0% EC in a tank mix combination.* Do not mix Neemazad® 1.0% EC with oxidizing agents such as bleach, or strong acids and bases as they will destabilize the product.

**DIRECTIONS FOR FOOD CROP APPLICATION**

**General Directions**

- Use care when applying near streams, ponds, lakes or other bodies of water.
- Do not apply Neemazad® 1.0% EC when weather conditions favor drift or when the likelihood of runoff is high.

**GREENHOUSE**

- For use to control whiteflies, thrips, mealybugs, leafminers, and aphids in and around greenhouses and commercial nurseries.
- Neemazad® 1.0% EC may be used on all fruits, vegetables, vegetable transplants, and herbs both inside and outside of the greenhouse.
- Dilute Neemazad® 1.0% EC at 1 to 2.25 pints (16 - 36 fluid oz.) per 100 gallons of water (1 1/8 to 2 1/4 teaspoon of Neemazad® 1.0% EC per gallon of water). Mix thoroughly. Apply at 25-40 psi with hand sprayer or 100-200 psi with power sprayer as a fine spray to both leaf surfaces to runoff. Use 1-2 gallons of spray solution/1,000 sq. feet. Avoid excessive application.
- For low volume application, apply 2.25 pint of Neemazad® 1.0% EC per acre in sufficient water to provide adequate coverage.
- Apply sprays on a preventative 7-day schedule or at the first sign of insect presence. This schedule is effective under low insect pressure. Under high insect pressure, apply every 3-4 days.
- For drench applications in greenhouse or nursery plantings, use 10 fluid ounces per 100 gallons and apply at the rate of 4.5 quarts of diluted solution per square foot of growing media surface. Repeat at 14-day intervals during the growing season.

**Specific Crop Directions**

**Application Rate:** Apply 1 1/8 - 4 1/2 pints (18.0-72.0 fluid oz.) of Neemazad® 1.0% EC per acre using suitable ground or aerial application equipment, in a manner to obtain uniform and complete plant coverage. For agronomic crops apply using conventional ground application equipment in a minimum of 30 gallons of water and aerial application equipment in a minimum of 3 gallons of water. Avoid over-spraying to the point of excessive runoff. Refer to table for application rates. Use the low rate as a preventative when pest pressure is low, or if used in conjunction with adulticide products. Otherwise, use the high rate. The maximum application rate is 20 grams active ingredient or less per acre according to the tolerance exemption (40 CFR 180.1119).

**Mode of Action**

This product controls targeted insect larvae when ingested or come in contact with it, by interfering with the insects' ability to molt. It is effective on all larval stages and pupae. It also reduces damage by repelling and deterring feeding of all stages of insect.

| Application Rate for Whiteflies, Aphids, Leafminers, Armyworms, and Other Pests | | | |
|---|---|---|---|
| **Pest** | **Rate Neemazad® 1.0% EC Per Acre*(fluid ounces)** | **Frequency** | **Remarks** |
| Sweetpotato Whitefly<br>Low Pressure<br>High pressure | <br>18.0 – 31.5 fluid oz.<br>36.0 – 72.0 fluid oz. | <br>4 – 10 days<br>3 – 7 days | <br>Foliar application to larvae and nymphs |
| Aphids | 22.5 – 31.5 fluid oz. | 7 – 10 days | Suppression and adult feeding deterrence |
| Leafminer | 18.0 – 31.5 fluid oz. | 14 – 21 days | Foliar application to larvae and nymphs |
| Leafhoppers | 31.5 – 72.0 fluid oz. | 7 – 10 days | Foliar application to nymphs |
| *apply in sufficient water to obtain adequate plant coverage. | | | |

### CITRUS, POME AND STONE FRUITS

Crops (including, but not limited to)

| | | |
|---|---|---|
| Apples | Jujubes | Peaches |
| Apricots | Kumquats | Pears |
| Avocado | Lemons | Plums |
| Cherries | Limes | Prunes |
| Crabapples | Nectarines | Quinces |
| Grapefruits | Oranges | |

### CUCURBITS

Crops (including, but not limited to)

| | | |
|---|---|---|
| Balsam pears | Gherkins | Pumpkins |
| Cantaloupes | Gourds | Squashes |
| Chinese waxgourds | Honeydew melons | Watermelons |
| Cucumbers | Mangoes | |

### BULB, COLE AND LEAFY VEGETABLES

Crops (including, but not limited to)

| | | |
|---|---|---|
| Asparagus | Collards | Mustard greens |
| Arugula | Cress | Onions |
| Broccoli | Endive | Parsley |
| Bok choy | Fennel | Rhubarb |
| Brussels sprouts | Garlic | Shallots |
| Cabbage | Kale | Spinach |
| Cauliflower | Kohlrabi | Swiss chard |
| Celery | Leek | Turnip tops |
| Chinese spinach | Lettuce | Watercress |

### LEGUME AND FRUITING VEGETABLES

Crops (including, but not limited to)

| | | |
|---|---|---|
| Beans | Lentils | Soybeans |
| Chick peas | Peanuts | Tomatoes |
| Eggplants | Peas | |
| Ground cherries | Peppers | |

### ROOT AND TUBER VEGETABLES

Crops (including, but not limited to)

| | | |
|---|---|---|
| Artichokes | Horseradish | Turmeric |
| Beets | Parsnips | Turnips |
| Carrots | Potatoes | Yam beans |
| Cassava | Radishes | Yams |
| Ginger | Rutabaga | |
| Ginseng | Sweet potatoes | |

### SMALL FRUITS AND BERRIES

Crops (including, but not limited to)

| | | |
|---|---|---|
| Blackberries | Dewberries | Loganberries |
| Blueberries | Elderberries | Raspberries |
| Boysenberries | Gooseberries | Strawberries |
| Cranberries | Grapes | Youngberries |
| Currants | Huckleberries | |

### HERBS AND SPICES

Crops (including, but not limited to)

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

### NUTS

Crops (including, but not limited to)

| | | |
|---|---|---|
| Almonds | Cashews | Macadamias |
| Beech nuts | Chestnuts | Pecans |
| Brazil nuts | Filberts | Pistachios |
| Butternuts | Hickory nuts | Walnuts |

### MISCELLANEOUS

Crops (including, but not limited to)

| | |
|---|---|
| Cotton | Corn |
| Sweet Corn | Other crops grown for seed |
| Alfalfa | |

INSECT PESTS CONTROLLED BY NEEMAZAD® 1.0% EC

**Aphids:**
Cotton Aphid
Green Peach Aphid
Black Margined Aphid
Filbert Aphid

**Leafhoppers:**
Grape Leafhopper
Potato Leafhopper
Variegated Leafhopper
Aster Leafhopper

**Leafminers:**
Holly Leafminer
Serpentine Leafminer
Vegetable Leafminer

**Thrips:**
Thrips Palmi

**Whiteflies:**
Greenhouse Whitefly
Silverleaf Whitefly
Sweetpotato Whitefly

**Psyllids**

**Spittle Bugs**

**Mealybugs**

**Beetles, Grubs and Weevils:**
Colorado Potato Beetle
Black Vine Weevil (soil drench)
Strawberry Beetle (soil drench)
Mexican Bean Beetle

**Miscellaneous:**
Fruitfly
Grasshopper
Squash Bug
Cabbage Maggot (soil drench)
Onion Maggot (soil drench)
Lygus Bug
San Jose Scales
Calico Scales
Frosted Scales
Pecan Leaf Phylloxera
Pecan Stem Phylloxera

**CHEMIGATION**

Refer to supplemental labeling entitled "Certis's Chemigation Bulletin" for use directions for chemigation. Do not apply this product through any irrigation system unless the supplemental labeling on chemigation is followed.

## STORAGE AND DISPOSAL

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

**Pesticide Storage:** Keep in original container. Store in a cool, dry place, away from direct sunlight, feed or foodstuffs. Keep container tightly sealed when not in use. Do not store below 50°F (10°C) or above 95°F (35°C).

**Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on-site or in an approved waste disposal facility.

**Container Handling:** Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent). Then offer for recycling, or reconditioning, or puncture and dispose of in a sanitary landfill or by incineration, if allowed by state and local authorities. 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.

# Chemigation Bulletin

**GENERAL INFORMATION:**

Apply this product only through drip (trickle); sprinkler (solid set, lateral move, end tow, sideroll, center pivot, or hand move); flood (basin); furrow; or border irrigation systems. Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

Chemigation systems connected to public water systems must contain a functional, reduced pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, discharge the water from the public water system into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection.

The pesticide injection pipeline must contain a functional, normally closed, solenoid operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

DRIP TRICKLE CHEMIGATION:

1. The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

2. The pesticide injection pipeline must contain a functional, automatic, quick-closing valve to prevent the flow of fluid back toward the injection pump.

3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

6. Systems must use a metering pump such as a positive displacement injection pump (i.e., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

7. Dilute the product in water following the label mixing directions. It may be premixed in a supply tank with water, fertilizer, or other appropriate tank-mixed agricultural chemicals. Agitation is necessary. Apply to moderately moist soils. Use volumes that thoroughly wet the soil but that do not cause significant runoff or excessive drip from pots. Application should be continuous in sufficient water to apply the application rate evenly to the entire treated area.

SPRINKLER CHEMIGATION:

1. The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

2. The pesticide injection pipeline must also contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

6. Systems must use a metering pump such as a positive displacement injection pump (i.e., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

7. Dilute the product in water following the label mixing directions. It may be premixed in a supply tank with water, fertilizer, or other appropriate tank-mixed agricultural chemicals. Agitation is necessary. Apply when soils are moderately moist. Use volumes that thoroughly wet the foliage and/or soil but that do not cause significant runoff or excessive drip from pots. Application should be continuous in sufficient water to apply the application rate evenly to the entire treated area.

8. Do not apply when wind speed favors drift beyond the area intended for treatment.

FLOOD (BASIN), FURROW AND BORDER CHEMIGATION:

1. Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential of water source contamination from the backflow if water flow stops.

2. Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:

   a. The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

   b. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

   c. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

   d. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

   e. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

   f. Systems must use a metering pump, such as a positive displacement injection pump (i.e., diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

3. Dilute the product in water following the label mixing directions. It may be premixed in a supply tank with water, fertilizer, or other appropriate tank-mixed agricultural chemicals. Agitation is necessary. Apply to moderately moist soils. Use volumes that thoroughly wet the soil but that do not cause significant runoff. Application should be continuous in sufficient water to apply the application rate evenly to the entire treated area.

# Sublabel B: Residential Use

# Neemazad® 1% EC

INSECT GROWTH REGULATOR

**FOR ORGANIC GARDENING**

Controls insect pests on ornamental plants, houseplants, trees, lawns, shrubs, bedding plants, flowers, and vegetables in the yard and garden, and in and around interiorscapes and homes. NEEMAZAD kills immature (stages of insects by disrupting their life cycle. . It disrupts, repels, and inhibits feeding by adult insects and disrupts their reproduction.

| | |
|---|---|
| Active Ingredient: | |
| Azadirachtin | 1.0% |
| Other Ingredients | 99.0% |
| Total | 100.0% |

OMRI Listed
Organic Materials Review Institute

EPA Registration No: 70051-104

EPA Establishment No: 44616-MO-01

**Keep Out of Reach of Children**

## CAUTION

See Side/Back Panel for Additional Precautionary Statements and First Aid

Net Contents:

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 swallowed. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Causes moderate eye irritation. Harmful if inhaled. Avoid breathing spray mist. 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 swallowed**: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**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.

**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 inhaled**: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. 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.

## 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 washwaters or rinsate.

## Directions for Use

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

General:

- Botanical Insecticide Concentrate
- Insecticide, Repellent, Insect Growth Regulator
- All-Purpose Insect Control
- All-Purpose Insecticide
- Broad Spectrum Insecticide
- Broad Spectrum Insect Control
- Insect Anti-Feedant
- Multi-Purpose Insecticide
- Kills and/or repels insects
- Kills immature stages of insects.
- For Indoor and Outdoor Use
- Formulated for Interiorscape use.

### General Information

NEEMAZAD's effectiveness is based on multiple modes of action. It disrupts insect horomones that in control life cycle development. immature insects. NEEMAZAD also repels insects and deters them from feeding on treated plants. These different modes of action result in broad spectrum control of the majority of insects that harm gardens, fruit trees, lawns, and shrubs..

NEEMAZAD is effective against a broad assortment of insect pests, has minimal impact on beneficial insects such as honey bees, or natural enemies of insect pests such as lady beetles .

Shake well before using. Use spray solutions within 8 hours of mixing for maximum effectiveness. Do not store diluted spray solution for later use.

Not for use in food handling areas.

NEEMAZAD is not intended as a "knock-down" insecticide. It interferes with insect growth and may require several days to kill immature insects. . It is most effective when applied 2-3 times at 7-10 day intervals. When infestations are heavy, apply on a 3-4 day interval until populations are reduced.

NEEMAZAD has both contact and ingestion activity. Application directly onto the target pest will therefore increase efficacy. Time applications for early to mid-morning or in the late afternoon for maximum effect.

Do not add other chemicals to NEEMAZAD solutions. Use soft water whenever possible.

Do not apply to wilted, stressed, or newly transplanted materials prior to root development. Do not apply to known sensitive plant species (such as Hibiscus flowers) without prior testing for potential plant damage due to phytotoxicity. Use with caution on new, tender foliage.

**DIRECTIONS FOR USE (Concentrate products):**

**Foliar application to bedding plants, potted plants, trees, shrubs, other ornamental plants**

For use on bedding plants, potted and foliage plants, trees, shrubs, and other ornamental plants in and around homes to kill immature forms or repel adults of the following insect pests:

PESTS:

Aphids

Beetles, including (but not limited to):
Mexican bean beetle, Elm leaf beetle, Colorado potato beetle, Weevils (repel adults), Japanese beetles (repel adults)

Box elder bugs

Caterpillars (Lepidoptera larvae), including but not limited to:
Armyworms (including Beet armyworm), Bagworms, Gypsy moth, Hornworms, Leafrollers, Loopers, Spruce budworm and other budworms, Tent caterpillars, Webworms

Fruitflies, Grasshoppers, Lacebugs, Leafhoppers, Leafminers, Mealybugs, Psyllids, Sawfly larvae, Scale insects (crawler stage), Spittlebugs, Thrips, Whiteflies, Wooly aphids (Wooly adelgids)

USE DIRECTIONS:

Begin applications at first sign of pest infestation.

1. Dilute to a concentration of 1 tablespoon (½ fl. oz.) of NEEMAZAD per gallon of water (equal to 1 part NEEMAZAD to 256 parts water).
2. Stir or shake to mix thoroughly.
3. Apply the solution as a fine spray to leaf surfaces using a hand sprayer or garden pump sprayer.
4. Apply sufficient spray to wet upper and lower leaf surfaces with minimal dripping or runoff.

**Lawn Application.** Apply to home lawns to control the following insect pests:

PESTS:

Billbugs
Chinch bugs
Crane flies
Fall armyworms
Fleas (immature stages)
*Hyperodes* weevils
Mole crickets
Sod webworms
White grubs* (larval stages of Chafers, May beetles, June beetles, and Japanese beetles) – see note at right

USE DIRECTIONS

1. Dilute 1 tablespoon (½ fl. oz.) of NEEMAZAD in 1 gallon of water.
2. Apply at the rate of 5 gallons spray solution per 2,000 square feet.
3. Apply NEEMAZAD 2-3 times on a 7-10 day interval to insure effective control of surface and sub-surface feeding pests.

Do not apply NEEMAZAD to newly seeded lawns.

*Best timing for initial white grub application will vary by region but is generally early to mid-summer and again in the fall. If in doubt, contact your local Cooperative Extension office for information about when white grubs are feeding in your area.

**House Plant Application:** For use on house plants to kill or repel the following insect pests:

| PESTS | USE DIRECTIONS |
|---|---|
| Aphids<br>Caterpillars<br>Fruitflies<br>Fungus gnats**<br>Lace bugs<br>Leafhoppers<br>Leafminers<br>Mealybugs<br>Psyllids<br>Scale insects<br>Spittle bugs<br>Thrips<br>Whiteflies | Apply at first visible signs of infestation.<br>Mix 1/3 teaspoon (0.06 fl. oz.) of NEEMAZAD per pint of water. Adjust spray bottle nozzle to "spray" setting and apply NEEMAZAD to leaf surfaces until completely wet but not dripping. Coat undersides of leaves especially those at the soil surface where many insects hide. Repeat every 1-2 weeks until signs of infestation are no longer visible.<br>**To kill fungus gnat larvae in the soil, pour NEEMAZAD (diluted as instructed above) directly onto the soil surface in each pot. Apply sufficient volume to drench the soil in the entire pot without excessive dripping. Do not water the plant for at least 24 hours after application. |

**Application to Vegetables, Fruits, Nuts, Herbs, Spices, and other food crops (see next table for list of crops)**

For use on vegetable and fruit crops to kill immature stages or repel adults of the following insect pests:

PESTS

Aphids, Leafminers, Squash bugs, Thrips, Whiteflies

Beetles, including but not limited to: Asparagus beetles, Bean leaf beetle, Borers, Black vine weevil (larvae)†, Colorado potato beetle, Cucumber beetles, Japanese beetle (repel adults), Mexican bean beetle, Twig girdlers

Caterpillars (Lepidoptera larvae), including but not limited to: Armyworms, Bollworms, Borers, Budworms, Corn earworm, Codling moth, Cutworms, Diamondback moth, European corn borer, Grapeleaf skeletonizer, Hornworms, Imported cabbageworm, Leafrollers, Loopers, Melonworm, Pickleworm, Pinworm, Tomato fruitworm, Tent caterpillars, Vine borers

USE DIRECTIONS

Begin applications at first sign of pest infestation.

1. Dilute to a concentration of 1 tablespoon (½ fl. oz.) of NEEMAZAD per gallon of water (equal to 1 part NEEMAZAD to 256 parts water).
2. Stir or shake to mix thoroughly.
3. Apply the solution as a fine spray to leaf and other exposed plant surfaces using a hand sprayer or garden pump sprayer.
4. Apply sufficient spray to wet upper and lower leaf surfaces with minimal dripping or runoff.
5. Make 2 or more applications at 7-10 intervals as needed to maintain control.

†To control black vine weevil larvae, mix NEEMAZAD with water as described above and use to drench the soil at the base of the plant. Apply sufficient volume (at least 4 fl. oz. per plant) to saturate the root zone without puddling. Do not water for at least 24 hours after application. Repeat after 1-2 weeks if necessary.

**CROPS (Including, but not limited to):**

Almond
Anise
Apple
Apricot
Artichoke
Arugula
Asparagus
Avocado
Balm
Basil
Beans (all types)
Beech nut
Beet
Blackberries (all types)
Blueberry
Bok choy
Borage
Boysenberry
Brazil nut
Broccoli
Brussels sprouts
Butternut
Cabbage
Camomile
Cantaloupe
Caraway
Carrot
Cashew
Cassava
Catnip
Cauliflower
Celery
Cherry
Chestnuts
Chick pea (Garbanzo)
Chinese cabbage
Chinese spinach
Chives
Collard greens
Collards
Coriander
Corn
Corn salad (Mâche)
Crabapple
Cranberry
Cress
Cucumber
Cumin
Currant
Curry leaf
Dandelion
Dewberry
Dill
Eggplant
Elderberry
Endive
Fennel
Fig
Filbert
Garlic
Ginger
Ginseng
Gooseberry
Gourds (all types)
Grape
Grapefruit
Ground cherry
Hawthorn
Hazelnut
Herbs (all types)
Hickory nuts
Honeydew
Horseradish
Huckleberry
Jujubes
Kale
Kohlrabi
Kumquats
Leek
Lemon
Lentil
Lettuce (all types)
Lime
Loganberry
Macadamias
Mandarins
Mangoes
Marigold
Marjoram
Melon (all types)
Mint (all types)
Muskmelon
Mustard
Mustard greens
Nectarine
Onion (all types)
Orange (all types)
Parsley
Parsnips
Peach
Peanut
Pears (all types)
Pea
Pecan
Pennyroyal
Peppermint
Peppers (all types)
Pistachio
Plum
Pluot
Pomegranate
Pomelo
Potato
Prune
Pumpkin
Quince
Radish
Raspberries (all types)
Rhubarb
Rosemary
Rue
Rutabaga
Sage
Savory
Shallots
Soybeans
Spearmint
Spinach
Squash (all types)
Strawberry
Sweet bay
Sweet potato
Swiss chard
Tangerine
Tangelo
Tarragon
Thyme
Tomato
Tomatillo
Turmeric
Turnip greens
Turnip
Walnut
Watercress
Watermelon
Wintergreen
Yam beans
Yam
Youngberry
Zucchini

**DIRECTIONS FOR USE (Hose End Applicator Instructions)**

1. Remove plastic wrap from carton and detach hose-end attachment.
2. Screw the longer end of the hose-end attachment onto hose.
3. Set valve switch to off position (at right angle to line of water flow).
4. Remove child resistant cap from product bottle and screw bottle top onto hose-end attachment until tight.
5. Turn faucet on. Begin spraying by turning the valve switch located on top of the attachment clockwise until fully in line with water flow.
6. When spraying is complete, turn valve switch counter clockwise to stop product flow.
7. Turn off faucet.
8. Unscrew product bottle from hose-end attachment, recap bottle and if empty dispose of according to label directions. Unscrew hose-end attachment from hose.
9. Store out of reach of children.

**Alternate Hose End Applicator Instructions:**

1. Make sure knob is twisted full clockwise (OFF position). Shake well, then attach to hose.
2. Turn Product Control Button clockwise until the flat portion is flush with the lock tab, then push button all the way in. Avoid squeezing the bottle.
3. Turn water on at faucet, aim nozzle toward surface to be sprayed and turn knob counter-clockwise to begin spraying.
4. When finished, push Product Control Button to OFF position from opposite side. Return knob and faucet to OFF position. Discharge water pressure by turning knob ON and OFF again. Turn Product Control Button counter-clockwise away from lock tab to prevent accidental discharge.
5. Store out of reach of children.

**Foliar Application to Trees and Shrubs (Hose End Applicator)**

For use on trees and shrubs on home landscapes to kill the immature (larva) stages or repel adults of the following insect pests:

PESTS

Aphids
Bagworms
Box elder bug
Elm leaf beetle
Grasshoppers
Gypsy moth
Hornworms
Lacebugs
Leafhoppers
Leafminers
Leafrollers
Mealybugs
Psyllids
Sawfly larvae
Scale insects (crawlers)
Spruce budworm
Tent caterpillars
Webworms
Weevils (repel adults)
Whiteflies
Wooly aphids (adelgids)

USE DIRECTIONS

The __ oz. hose end applicator for trees and shrubs will treat up to __ ten foot trees.

Repeat application 2 to 3 times at an interval of 7-10 days.

Spray leaf surfaces to run-off. Be sure to coat undersides of leaves as this is where many insects hide. Avoid excessive application.

**Foliar Application to Bedding and Potted Plants (Hose End Applicator)**

For use on bedding plants, potted and foliage plants, ornamentals in residential settings to control the immature or larval forms of the following insect pests:

| PESTS | USE DIRECTIONS |
|---|---|
| Aphids<br>Beetles, including (but not limited to): Mexican bean beetle, Elm leaf beetle, Colorado potato beetle, Weevils (adults), Japanese beetles (adults)<br>Box elder bugs<br>Caterpillars (Lepidoptera larvae), including but not limited to: Armyworms (including Beet armyworm), Gypsy moth, Hornworms, Leafrollers, Loopers, Spruce budworm and other budworms, Tent caterpillars, Webworms<br>Fruitflies, Grasshoppers, Lacebugs, Leafhoppers, Leafminers, Mealybugs, Psyllids, Sawfly larvae, Scale insects (crawler stage), Spittlebugs, Thrips, Whiteflies, Wooly aphids (Wooly adelgids) | The ___ oz. hose end applicator for bedding and potted plants will treat approximately ____ square feet of plant material __ times.<br>Repeat application 2 to 3 times at an interval of 7-10 days.<br>Apply to leaf surfaces to run-off. Be sure to coat undersides of leaves as this is where many insects hide. Avoid excessive application.<br>Do not apply to known sensitive plants without a prior small scale test application. |

**Lawn Application (Hose End Applicator)**

For use on home lawns to control the immature larval stages of the following insect pests:

| PESTS | USE DIRECTIONS |
|---|---|
| Billbugs<br>Chinch bugs<br>Crane flies<br>Fall armyworms<br>Fleas (immature stages)<br>*Hyperodes* weevils<br>Mole crickets<br>Sod webworms<br>White grubs* (larval stages of Chafers, May beetles, June beetles, and Japanese beetles) – see note at right | The __ oz. hose-end applicator for lawns will treat approximately ____square feet.<br>Apply NEEMAZAD 2-3 times on a 7-10 day interval to insure effective control of surface and sub-surface feeding pests<br>Do not apply NEEMAZAD to newly seeded lawns.<br>*Best timing for initial white grub application will vary by region but is generally early to mid-summer and again in the fall. If in doubt, contact your local Cooperative Extension office for information about when white grubs are feeding in your area. |

**Hose-end Sprayer Refill** [a]

1. Remove child resistant cap from product bottle and screw bottle top onto hose-end attachment until tight.
2. Turn faucet on. Begin spraying by turning the valve switch located on top of the attachment clockwise until fully in line with water flow.
3. When spraying is complete, turn valve switch counter clockwise to stop product flow.
4. Turn off faucet.
5. Unscrew product bottle from hose-end attachment, recap bottle and if empty dispose of according to label directions. Unscrew hose-end attachment from hose.

[a]Will also contain appropriate application directions as per the foregoing.

## DIRECTIONS FOR USE AS A REPELLENT

**Repellency Against Japanese Beetles and Other Pests:**

NEEMAZAD repels a variety of pests including armyworms, aphids, and Japanese Beetles.

Dilute to a concentration of 1 tablespoon (½ fl. oz.) of NEEMAZAD per gallon of water ( Mix thoroughly and apply to plants with a hand sprayer, being sure to completely cover foliage and flowers. Apply just before pests emerge or at first sign of infestation.

Repeat applications every 3-7 days, or immediately after significant rainfall.

**Storage and Disposal**

Pesticide Storage: Keep in original container. Store in a cool, dry place, away from direct sunlight, feed or foodstuffs. Keep container tightly sealed when not in use. Do not store below 50°F (10°C) or above 95°F (35°C).

Pesticide Disposal and Container Handling:

**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.