

MASTER LABEL

ACCEPTED

MAY 16 1996

Under the Federal Insecticides, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 11688-9

PM 90
11688-9
P9 1/6

GRACE

NeemGuard

Broad Spectrum Insecticide/Fungicide/Miticide
For Indoor/Outdoor Use On Ornamental Flowering Plants, Trees, Shrubs, and Foliage Grown in Nurseries, Greenhouses, Homes, and Residential and Commercial Landscapes

Controls Fungal Diseases Including Black Spot, Mildews, Rusts, and Scab
Kills Insects Including Whiteflies, Aphids, Mites, and Scales

ACTIVE INGREDIENT:

Clarified Hydrophobic Extract of Neem Oil 90%

INERT INGREDIENTS 10%

TOTAL 100%

This product contains 7 lb of clarified hydrophobic extract of neem oil per US gallon.

ENVIRONMENTAL HAZARDS

This product may be hazardous to fish and aquatic invertebrates. 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 by cleaning of equipment or disposal of equipment washwaters.

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.

STORAGE AND DISPOSAL

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 55°F (10°C) or above 95°F (35°C).

Pesticide Disposal: Do not contaminate water, food or feed by storage or disposal. Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.

Container Disposal: Triple rinse. 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.

General Information:

- For effective control of black spot on roses.
- Broad spectrum disease control.
- Disease preventative.
- Effective botanical disease control.
- Prevents and controls black spot on roses, anthracnose, rust, and powdery mildew.
- All-Purpose Insecticide/Fungicide/Miticide
- Multi-Purpose Insecticide/Fungicide/Miticide
- Kills insects and their eggs.
- Organic Active Ingredient
- Organic Insecticide/Fungicide/Miticide
- Organic Insect Control
- Formulated for interiorscape use.
- Do not use on food crops.
- Not for use in food handling areas.
- Shake well before using.

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

EPA Reg. No. 11688-9

EPA Est. No. _____

Net Contents: _____

Composition covered by US Patents 5,298,251; 5,356,628; 5,372,817; 5,405,612; and 5,409,708.

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.

STATEMENT OF PRACTICAL TREATMENT

IF ON SKIN: Wash with plenty of soap and water. Get medical attention.

IF IN EYES: Wash with plenty of water. Call physician if irritation persists.

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.

Follow 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:

- 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.

MANUFACTURED BY:

GRACE Biopesticides

W.R. Grace & Co.—Conn.

7500 Grace Drive, Columbia, MD 21044

NeemGuard is a trademark of W.R. Grace & Co.—Conn.

- For best results, maintain constant agitation in spray equipment.
- Sonification equipment is not recommended because it may cause the emulsion to separate.
- For optimal performance, do not mix with cold water (less than 55°F).
- Prevents and controls black spot on roses, anthracnose, rust, and powdery mildew.
- Do not add any adjuvants (spreaders, stickers, extenders, etc.) to NeemGuard.
- 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 camellia varieties without prior testing.
- 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.

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.

TANK MIXING

NeemGuard has been found to be compatible with most commonly used fungicides, insecticides, and fertilizers. Physical compatibility should first be checked by using the correct proportion of products in a small jar test. Growers should then test tank-mix combinations for phytotoxicity on a sample of plants prior to use. This is also recommended 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 NeemGuard in a tank mix combination.*

COMMERCIAL USE INSTRUCTIONS

FUNGICIDE USE

ORNAMENTAL DISEASE CONTROL:

NeemGuard 90 EC 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, and flower, twig, and tip blight.

Landscape, Greenhouse, and Nursery Ornamentals:

NeemGuard will provide broad spectrum control of many fungal diseases affecting ornamental flowering plants, trees, shrubs, and foliage when used as a foliar spray. NeemGuard should be used at the rate of 1 gallon per 100-200 gallons of water, depending on the level of disease pressure. The lower rate (1:200) can be used 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 NeemGuard is used as a preventative, the lower rate (1:200) will provide adequate control for most greenhouse situations. If disease pressure is evident, the higher rate (1:100) is recommended. Applications for disease prevention should be made on a 7-14 day schedule depending on the anticipated severity of the disease pressure. To control existing disease, NeemGuard should be applied on a 7-day schedule until the disease pressure is eliminated. A 14-day

schedule should then be used to prevent disease pressure from returning. **NOTE:** Greenhouse roses should only be sprayed in a rotations program which includes NeemGuard once every 4 weeks.

Landscape Ornamentals:

In outdoor landscape applications, it is best to apply NeemGuard at the 1:100 rate. This will provide the necessary control under the extreme outdoor conditions. When using NeemGuard as a preventative, applications should be made on a 14-day schedule. If disease is present, a 7-day application schedule should be used to control the disease and prevent further damage from occurring.

MIXING INSTRUCTIONS:

Add NeemGuard to one-half (1/2) full tank under agitation containing water of 55°F or greater before filling to desired level. If water temperature is below 55°F, premix NeemGuard at a 1:10 ratio with tepid water to ensure good emulsification. Then dilute to final volume. Maintain agitation during spray application. Do not use if this oil does not emulsify.

APPLICATION INSTRUCTIONS:

Apply to runoff at 25-40 psi with hand sprayer or 100-200 psi with power sprayer as a fine spray to both leaf surfaces. Excessive application is unnecessary and should be avoided.

MANAGEMENT OF LANDSCAPE AND ORNAMENTAL DISEASES			
SPRAY TARGET	CONCENTRATATION	SPRAY INTERVAL	PRECAUTIONS
Potted Plants (Greenhouses)	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	1:100 - 1:200 (1.0% - 0.5%)	7-14 Days	Do not spray impatiens flowers
Outdoor Woody Plants	1:50 - 1:100 (2.0% - 1.0%)	14 Days	

MANAGEMENT OF TURF DISEASES			
SPRAY TARGET	CONCENTRATION	SPRAY INTERVAL	PRECAUTIONS
Snow Mold	1:100 - 1:50 (1.0% -2.0%)	14 Days	In fall before first snow
Dollar Spot	1:100 - 1:200 (1.0% - 0.5%)	14 Days	At first sign of disease
Brown Patch	1:100 - 1:200 (1.0% - 0.5%)	14 Days	At first sign of disease

INSECTICIDE 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 and residential structures.

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

Sprays should be made on a 7-14 day interval depending on the severity of the pest problem. The 7-day schedule should be used until the pest population is reduced. A 14-day interval should then be used for control. Sprays should be made in early to mid-morning or late afternoon. This is important to ensure that the spray thoroughly wets the pests to be controlled, which are often sedentary on the foliage at these times, and also minimizes plant stress.

MIXING INSTRUCTIONS:

Add NeemGuard to one-half (1/2) full tank under agitation containing water of 55°F or greater before filling to desired level. If water temperature is below 55°F, premix NeemGuard at 1:10 ratio with tepid water to ensure good emulsification. Then dilute to final volume. Maintain agitation during spray application. Do not use if this oil does not emulsify.

APPLICATION INSTRUCTIONS:

Apply to runoff at 25-40 psi with hand sprayer or 100-200 psi with power sprayer as a fine spray to both leaf surfaces. Thorough coverage of plant pests is necessary to ensure efficacy. However, excessive application is unnecessary and should be avoided.

**CONSUMER USE DIRECTIONS
FUNGICIDE USE**

Application Instructions:

NeemGuard is an effective fungicide for the prevention and control of various fungal disease including black spot on roses, powdery mildew, downy mildew, anthracnose, rust, leaf spot, botrytis, needle rust, scab, and flower, twig, and tip blight.

As a preventative, NeemGuard should be applied on a 7 to 14 day schedule until the potential for disease development is not longer present.

To control disease already present, apply NeemGuard 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. Applications should continue until disease pressure no longer exists.

For black spot on roses, applications should begin at first bud emergence in spring. Apply NeemGuard on a 14-day preventative schedule through the spring and fall to prevent disease emergence.

Mixing Instructions:

Mix NeemGuard at the rate of 2 tablespoons (1 oz) per gallon of water. Thoroughly mix solutions and spray all plant leag surfaces (including undersides of leaves) until completely wet. Frequently mix solution as you spray.

INSECTICIDE USE

Applications Instructions:

For use to control whiteflies, thrips, mealybugs, leafminers, loopers, caterpillars, beet armyworms, aphids, psyllids, we worms, hornworms, spruce budworms, pine sawflies, gypsy moths, crane flies, leafhoppers, fruit flies, elm leaf beetles, bagworms, tent caterpillars, mites, scales, Japanese beetles, midges, and grasshoppers on ornamentals, trees, and shrubs in and around the home.

Apply NeemGuard at first sign of insects/mites. NeemGuard is most effective in controlling insects/mites when applied on a 7-14 day schedule. For heavy insect populations, apply on a 7-day schedule.

Mixing Instructions:

Mix NeemGuard at the rate of 2 tablespoons (1 oz) per gallon of water. Thoroughly mix solutions and spray all plant leag surfaces (including undersides of leaves) until completely wet. Frequently mix solution as you spray.