

70299-17

5/30/2012

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON D C 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

May 30, 2012

BioSafe Systems, LLC  
22 Meadow Street  
East Hartford, CT 06108  
Attn Donna Bishel

Subject Notification – to add Alternate Brand Name per PR Notice 98-10  
Product Brand Name AzaGuard  
**Alternate Brand Name Aza Guard Botanical Insecticide**  
EPA Reg No 70299-17

Dear Ms Bishel

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

Three (3) copies of final printed labeling must be submitted to the Agency before your product as modified, may be sold or distributed [PR Notice 82-2 and 40 CFR 156.10(a)(6)].

If you have any questions regarding this action, you may contact Mr. Sylvester George at (703) 603-0688 or via e-mail at [george.sylvester@epa.gov](mailto:george.sylvester@epa.gov)

Sincerely,

*Linda A Hollis*

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



United States  
**Environmental Protection Agency**  
 Washington DC 20460

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

OPP Identifier Number

**Application for Pesticide - Section I**

1 Company/Product Number 70299-17	2 EPA Product Manager Linda Hollis	3 Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4 Company/Product (Name) AzaGuard	PM# 91/Biochemical Pesticides Br/BPPD	
5 Name and Address of Applicant (Include ZIP Code) BioSafe Systems, LLC 22 Meadow Street East Hartford, CT 06108 <input type="checkbox"/> Check if this is a new address	6 Expedited Review In accordance with FIFRA Section 3(c)(3)(b)(i) my product is similar or identical in composition and labeling to EPA Reg No _____ Product Name _____	

**Section - II**

<input type="checkbox"/> Amendment Explain below	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application
<input checked="" type="checkbox"/> Notification Explain below	<input type="checkbox"/> Other Explain below

**Notification Accepted**  
 Date MAY 30, 2012  
 Reviewer Sylvester George

**Explanation** Use additional page(s) if necessary (For section I and Section II)  
 NOTIFICATION to add alternate brand name per PRN 98 10 Refer to attached cover letter for details  
 This notification is consistent with the provisions of PR Notice 98 10 and EPA regulations at 40 CFR 152 46 and no other changes have been made to the labeling or confidential statement of formula for this product I understand that it is a violation of 18 U S C Sec 1001 to willfully make any false statement to EPA I further understand that if this notification is not consistent with the terms of PRN Notice 98 10 and 40 CFR 152 46 this product may be in violation of FIFRA and may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA

**Section - III**

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

**Section - IV**

1 Contact Point (Complete items directly below for identification of individual to be contacted if necessary to process this appl. at c 1)		
Name Donna Bishel / dbishel@biosafesystems.com	Title Technical Director	Telephone No (Include Area Code) (410) 878 7700
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true accurate and complete I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law		6 Date Application Received (Stamped)
2 Signature 	3 Title Technical Director	
4 Typed Name Donna Bishel / dbishel@biosafesystems.com	5 Date May 17, 2012	



22 Meadow Street  
East Hartford, CT 06108  
Phone 860 290 8890  
Fax 860 290 8802  
E-mail info@biosafesystems.com  
Web biosafesystems.com

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Linda Hollis  
Chief Biochemical Pesticide Branch  
Biopesticides and Pollution Prevention Division (7511P)  
Office of Pesticide Programs, EPA  
One Potomac Yard  
2777 South Crystal Drive  
Arlington VA 22202

May 17, 2012

**RE AzaGuard  
EPA Registration No 70299-17**

**Notification to add Alternate Brand Name**

Dear Ms Hollis

Enclosed with this letter you will find the following in support of a notification to add an alternate brand name to the Master label for the above-mentioned product

- 1) Notification form,
- 2) One (1) copy of the revised label with all changes highlighted in redline,
- 3) Three (3) clean copies of the label

Changes included in this notification are

- a Page 1 of the Master Label – Addition of the Alternate Brand Name – ‘AzaGuard Botanical Insecticide’

All of these changes are

- a Consistent with PR Notice 98-10 and 40 CFR Part 156, and
- b Involve no change in the ingredients statement, signal word, use classification, precautionary statements, First Aid physical/ chemical/ biological properties storage and disposal, or directions for use advisory and mandatory language

Please do not hesitate to contact me directly with any questions and/ or concerns at (410) 378-7700 or at dbishel@biosafesystems.com

Sincerely,

Donna Bishel  
Technical Director for BioSafe Systems, LLC

**MASTER LABEL**

**AzaGuard™**

*(Alternate Brand Names NemaTol AzaGuard Botanical Insecticide)*

**BOTANICAL BASED INSECTICIDE / NEMATOCIDE**

**Sublabel A For Agricultural and Commercial Use**  
**Sublabel B For Residential Use**

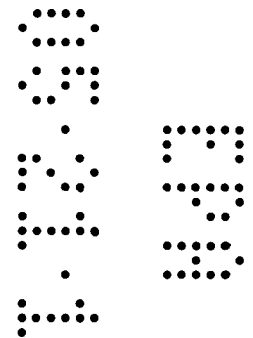
<b>Active Ingredient</b>	
Azadirachtin	3.00%
<b>Other Ingredients</b>	97.00%
<b>Total</b>	100.00%

Contains 0.28 lb (128 grams) of azadirachtin per gallon

**EPA Registration No** 70299-17                      **Batch Code** \_\_\_\_\_  
**EPA Establishment No** 070299-CT-001, 067441-IL-001

**Sold by**  
BioSafe Systems LLC  
22 Meadow Street  
East Hartford, CT 06108  
(888) 273-3088

**Net Contents** (2 ml, 32 fl oz, 2 liter, 1 and 5 gallon(s))



**Sublabel A For Agricultural and Commercial Use**

# AzaGuard™

(Alternate Brand Name NemaTol)

**BOTANICAL BASED INSECTICIDE / NEMATICIDE**

For use on food crops, ornamentals, shrubs, trees, turfgrass (including golf courses and athletic fields) and non food uses

For greenhouses shadehouses interiorscapes mushroom houses and nursery uses

For commercial and industrial areas

For controlling and repelling insects such as aphids armyworms, beetles budworms cutworms fungus gnats, houseflies, leafhoppers leafminers loopers, leafrollers, and other caterpillars mealybugs mushroom flies (or sciarid flies) sawflies scales thrips webworms weevils whiteflies and plant parasitic nematodes such as burrowing dagger golden and various root knot nematodes

**Active Ingredient**

Azadirachtin 3 00%

**Other Ingredients** 97 00%

**Total** 100 00%

Contains 0 28 lb (128 grams) of azadirachtin per gallon

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

**FIRST AID**

<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing</li> <li>• Rinse skin immediately with plenty of water for 15 20 minutes</li> <li>• Call a poison control center or doctor for treatment advice</li> </ul>
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 – 20 minutes</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye</li> <li>• Call a poison control center or doctor for treatment advice</li> </ul>
Have the product container or label with you when calling a poison control center or doctor or going for treatment You may also contact 1 800 222 1222 for emergency medical treatment information	

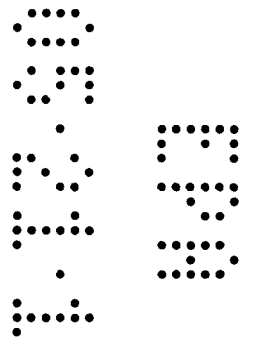
See (back) (side) (inside) panel for additional precautionary statements and directions for use

**EPA Registration No** 70299 17 **Batch Code** \_\_\_\_\_

**EPA Establishment No** 070299 CT 001, 067441 IL 001

**Sold by**  
BioSafe Systems LLC  
22 Meadow Street  
East Hartford, CT 06108  
(888) 273 3088

**Net Contents** (2 ml ,32 fl oz, 2 liter 1 and 5 gallon(s)



**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

CAUTION Harmful if inhaled or absorbed through skin Avoid contact with skin eyes or clothing Wash thoroughly with soap and water after handling Avoid breathing spray mist Remove contaminated clothing and wash clothing before use

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Applicators and handlers must wear

- Long sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

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

**USER SAFETY RECOMMENDATIONS**

<p><b>Users should</b></p> <ul style="list-style-type: none"> <li>• Wash hands before eating, drinking chewing gum using tobacco or using the toilet</li> <li>• Remove clothing/PPE immediately if pesticide gets inside Then wash thoroughly and put on clean clothing</li> <li>• 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</li> </ul>
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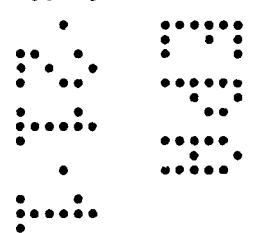
**ENVIRONMENTAL HAZARDS**

This pesticide is toxic to birds 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 Do not apply when weather conditions favor drift from treated areas Runoff from treated area may be hazardous to aquatic organisms in neighboring areas

**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 irrigation system unless the chemigation instructions on this label are followed 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 and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS).

Do not enter or allow 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:

- Long sleeved shirt and long pants
- Waterproof gloves
- Socks and shoes

For field sprays:

Keep unprotected persons out of treated areas until sprays have dried.

**NON-AGRICULTURAL USE REQUIREMENTS**

These requirements apply to uses of this product that are NOT within the WPS 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. For other uses including golf courses and other non agricultural uses, do not enter treated areas without protective clothing until sprays have dried.

**PRODUCT DESCRIPTION**

AzaGuard is an emulsifiable concentrate containing 3.0% azadirachtin by weight. It has been evaluated on a wide variety of ornamental, forestry, and food crops. No phytotoxicity at recommended field rates has been observed. AzaGuard is an insect growth regulator and does not control adult insects. However, AzaGuard is also effective as a repellent towards some adult species as detailed below.

**MODE OF ACTION**

AzaGuard controls insects in the larval, pupal, and nymphal stages by interfering with the metabolism of ecdysone. Insects typically die between larval to larval, larval to pupal, nymph to nymph molts or during adult eclosion.

**COMPATIBILITY**

AzaGuard is compatible with the most commonly used insecticides fungicides and fertilizers Compatibility should be checked by using the correct proportion of the products in a small test container Growers should then test the tank mix combinations for possible adverse effects (such as settling out flocculation etc ) and for phytotoxic effects on a small sample of plants prior to use As environmental conditions can alter the interactions between compounds, a compatibility test is recommend for both new and previously used combinations Avoid mixtures of several materials and very concentrated spray mixtures

Do not use AzaGuard with Bordeaux mixture, triphenyltin hydroxide lime sulfur Rayplex iron or other highly alkaline materials Use mildly alkaline mixtures immediately after mixing to prevent loss of insecticidal activity

When using AzaGuard in combination with other products, use AzaGuard at the rate or half the rate, specified in the Use Rate Recommendation table Follow the directions for use, precautions and limitations for use on all of the product labels used in the combination Some suggested tank mix combinations are as follows

- AZAGUARD plus non – phytotoxic crop oil\*
- AZAGUARD plus endosulfan\*
- AZAGUARD plus chlorpyrifos\*
- AZAGUARD plus acephate\*
- AZAGUARD plus Bacillus thuringiensis\* (BT)
- AZAGUARD plus bifenthrin\*
- AZAGUARD plus esfenvalerate\*
- AZAGUARD plus abamectin\*
- AZAGUARD plus diflubenzuron\*
- AZAGUARD plus pyrethrum + piperonyl butoxide (for fogging use)\*

- Always follow the manufacturer s Directions for Use and Precautionary Statements

**APPLICATION INSTRUCTIONS**

**READ ALL DIRECTIONS AND PRECAUTIONS BEFORE USE**

AzaGuard is exempt from tolerances and may be applied as directed to any food or non food crop up to and including the day of harvest at a rate not exceeding 22.5 fl oz (20 grams active ingredient) per acre per application

To apply AzaGuard, select a suitable power or pump pressure sprayer or a hand held trigger type sprayer that will deliver a fine spray mist to cover all leaf and fruit surfaces To get complete spray coverage on waxy or pubescent plant surfaces, the addition of small amount of a suitable sticker agent added to the spray mix at the recommended rates may give better foliage coverage, and insect control

**MIXING** Shake well before mixing Always use this product promptly after mixing with water AzaGuard will break down in the spray solution if not used within 8 hours Never allow tank mix to



stand overnight. AzaGuard will break down in spray tank mixtures that have pH values exceeding 7.0. The recommended pH range is between 5.5 and 6.5. For optimum performance, a buffering agent may be used. When mixing with other approved agrichemicals, always ensure proper agitation in the spray tank to ensure uniform application.

Using the use tables below, determine the amount of AzaGuard required for the number of acres to be treated. To a clean spray tank, add at least one-half the water to be sprayed. Begin agitation and add the determined amount of AzaGuard. Add the remaining water and continue agitation.

AzaGuard disperses freely when added to water. Always use clean equipment. For uniform distribution on plant canopy and proper dilution, always ensure proper agitation in mixing tanks or vessels. When mixing with other agrichemicals, add solid constituents (such as wettable powders, water dispersible granules or micronutrients) last in the form of a slurry.

**APPLICATION METHODS AND EQUIPMENT** AzaGuard can be applied as a foliar spray or a drench to soil or soil-less media (e.g., greenhouses and mushroom houses) to control insects and nematodes. When needed, soil drenches can also be used to control soil-borne pests, including soil-borne larvae of foliar insect pests. When applying as a drench, avoid excessive leaching. AzaGuard may be applied through sub-surface soil treatment equipment (e.g., turf grass). To repel adult flies, apply through fogging equipment. Always follow equipment manufacturers' use directions.

AzaGuard may be applied using any powered or manual pesticide application equipment, which includes but is not restricted to high volume, low volume, ultra low volume, electrostatic fogging and chemigation. Follow the original manufacturer's recommendations when using these types of equipment.

**Hose End Sprayer** Follow use directions on manufacturer's hose end sprayer. Fill reservoir with AzaGuard. Set sprayer to deliver a rate of 0.08 to 0.10 fl. oz. per gallon or a 1:1280 – 1:1600 dilution. Spray this solution on the desired treatment surface.

**32 oz Spray Bottle** For smaller applications, AzaGuard may be diluted into a 32 ounce hand-held spray bottle. Follow all label directions for use.

1. Remove cap on side of bottle and fill with hot tap water to the fill line. (Note fill line on bottle)
2. Peel up the resealable label containing ampoules on front of container. Remove one ampoule. Squeeze all contents of ampoule into container. Close cap and shake vigorously. Discard empty ampoule.
3. Spray AzaGuard solution onto plants. Thoroughly wet all surfaces of the plant.

*Note: Use entire container contents at the time of application. Do not store diluted product.*

For outdoor and field applications, apply AzaGuard at the application rates in sufficient water to assure adequate coverage. Conventional application equipment: apply in a minimum 30 gallons of water per acre. Aerial equipment: apply in maximum of 3 gallons of water per acre.

**For optimum results, 2 to 3 applications made at 7 to 10 day intervals is recommended, unless otherwise specified** Foliar applications should be made to both sides of leaves In addition a surfactant used as per the manufacturer s recommendations may improve product performance The addition of a non – phytotoxic crop oil at rates not exceeding 1 0% (volume / volume) generally enhances insect control

**NOTE** This product has been evaluated for phytotoxicity on a wide range of plants However since all combinations or sequences of pesticide sprays including fertilizers surfactants and adjuvants have not been tested spray a small area first to make certain no phytotoxicity occurs

Make applications when insects first appear and are in their early larval stages Repeat applications every 7 days or as needed

**PLANTS ON WHICH AZAGUARD CAN BE USED**

AzaGuard can be used indoors and outdoors on the following plants

**Greenhouse food crops, such as** Brassica (Cole) Crops, Cucurbits Eggplants Herbs and Spices Legumes, Peppers, Tomatoes and other miscellaneous crops grown in greenhouses

**Root and tuber vegetables, such as** Artichokes, Beets, Carrots, Cassava, Ginger Horseradish, Jicama, Potatoes, Radishes, Rutabagas Salsify Sweet Potatoes, Turmeric, Turnips, Yams

**Mushrooms, such as** Agaricus, Enoki, Maitake Oyster Shitake, and other specialty mushrooms

**Leafy vegetables (including Brassica Leafy Vegetables), such as** Amaranth Broccoli Brussels Sprouts, Cabbage, Cauliflower, Celery, Chervil, Chinese Cabbage Collards Cress, Endives Fennel Kale Kohlrabi, Lettuce, Mizuna Mustard Greens Parsley Purslane Rape Greens, Rhubarb, Spinach, Swiss Chard

**Legume vegetables, such as** Beans (Field, Kidney Etc ), Chickpeas, Cowpeas, Guar, Jackbeans Lablab Beans Lentils Peas Pigeon Peas Soybeans, Sword Beans

**Fruiting vegetables, such as** Eggplants, Ground Cherries Pepinos Peppers Pimentos Tomatillos Tomatoes

**Cucurbit vegetables, such as** Bitter Melons, Chayotes Chinese Wax Gourds Citron Melons, Cucumbers, Gherkins Gourds, Muskmelons (Cantaloupes Casabas Crenshaw) Pumpkins Squash, and Watermelons

**Citrus fruits, such as** Calamondins, Citrus Citrons, Citrus Hybrids, Grapefruits Kumquats, Lemons Limes Mandarins Oranges Pummellos Satsuma Mandarins

**Pome fruits, such as** Apples, Crabapples, Loquats Mayhaws Oriental Pears Pears, Quinces

**Stone fruits, such as** Apricots, Cherries, Nectarines, Peaches, Plums, Prunes

**Berries, such as** Blackberries And Caneberries, Blueberries Currants Elderberries Gooseberries Huckleberries Loganberries Raspberries Strawberries Youngberries

**Cereal grains, such as** Barley Buckwheat, Corn, Millet Oats Popcorn Rice Rye Sorghum, Teosintes, Triticale Hybrids, Wheat Wild Rice

**Herbs and spices, such as** Allspice Angelica, Anise, Annatto, Balm Basil Black And White Peppers, Borage Burnet Camomile Caper Buds Cardamom, Caraway Cassia Catnip Celery Seeds Chervil Chives Cinnamon, Clary, Cloves Coriander (Cilantro) Costmary Cumin Curry Leaf, Dills, Fennels, Fenugreek, Grains Of Paradise Horehound Hyssop, Juniper Berry Lavender Lemongrass Lovage Mace, Marigolds Marjoram Mustard Seeds Nasturtium, Nutmeg Parsley Pennyroyal, Poppy Seeds Rosemary Rue Saffron Sage Savory Sweet Bay (Bay Leaf) Tansy Tarragon Thyme Vanilla Wintergreen, Woodruff Wormwood

**Bulb vegetables, such as** Garlic Leeks Onions Shallots

**Nuts, such as** Almonds, Beechnuts, Brazil Nuts Butternuts Cashews, Chestnuts Chinquapin Filberts Hickory Nuts Lychee Nuts Macadamias Pecans Pistachios, Walnuts

**Oilseed crops, such as** Canola Castor Crambe Guar, Jojoba Peanut Rape Safflower Sesame Soybean Sunflower

**Tropical fruits, such as** Atemoya Banana Breadfruit, Cherimoya Durian Guava Malanga Mango, Papaya, Passionfruit, Starfruit

**Miscellaneous food and non-food crops, such as** Asparagus Avocado, Birdseed, Cacao, Coffee Edible Flowers Feijoa, Figs, Ginseng, Grapes, Guayule, Hops, Kiwi Okra Olives Palms Papaya, Pawpaw, Persimmon, Pineapple, Rambutan Sugarcane, Tamarillo, Tea, Tobacco Water Chestnut, Watercress

**Bedding Plants, Flowers, Ornamental Plants, Potted Plants and Foliage, such as** Actinopterus, African Violets, Ageratum, Aglaonema, Allamanda, Algerian Ivy, Alocasia, Anthurium Aphelandra, Artemisia, Aster, Aucuba Azalea, Baby s Breath, Begonia Bougainvillea, Boston Fern Boxwood Brachycome Cacti Calabrese Caladium Calla Calathea Calendula Carnation Chrysanthemum, Cineraria, Coleus, Columbine Cotoneaster Cyclamen Daffodil Dahlia Daisy Daylily Delphinium Dianthus Dieffenbachia Dusty Miller Easter Lily English Ivy Euphorbia, Fern, Ficus, Foxglove, Freesia, Fuchsia, Gaillardia, Gardenia, Geranium, Gerbera, Gladioli, Gloxinia Gypsophilla, Hedera ,Hibiscus, Hyacinth, Hydrangea, Impatiens Iris, Ivy, Lily, Maidenhair Fern, Mandevilla, Margold, Narcissus, Nasturtium, Orchid, Pansy, Pelargonium, Peony, Peperomia, Petunia Philodendron, Phlox, Photinia, Pittosporum, Pinks, Poinsettia, Pothos, Portulaca, Pyracantha, Rosemary, Rose, Rubberplant, Salvia, Schefflera, Sedum, Sempervivum Snapdragon, Spathiphyllum, Stock, Syngonium, Tulip, Verbena, Vinca Wandering Jew Yew, Yucca, Zinnia

**Ornamental Trees And Shrubs, such as** Andromeda, Arborvitae, Ash, Austrian Pine, Azalea, Beech, Birch, Birds Nest Spruce, Blue Spruce, Bougainvillea, Boxwood Butternut Camellia, Cedar, Chamaecyparis, Cherry, Crabapple, Cyprus, Dogwood, Douglas Fir, Elm, Euonymus, Firethorn

Forsythia Hackberry Hawthorn Hemlock Hickory, Holly Honey Locust Horse Chestnut Ilex Juniper Larch Laurel Lilac Linden London Plane, Magnolia Maple Mimosa, Mountain Ash Myrtle Oak Pachysandra Peach Pine Photinia Plane Tree Pines Poplar Privet Quince Rhododendron Roses Spruce Sycamore White Cedar, White Pine

**Turf And Turfgrass, such as** Bentgrass Bermuda Grass Bluegrass, Centipede Grass Fescue Ryegrass St Augustine, Wheatgrass, Zoysia Grass

**USE RATE RECOMMENDATIONS**  
**FOR KEY PESTS BY USE SITE**

AzaGuard is intended for use on outdoor plants and food crops mushroom houses plants grown indoors or in greenhouses, shade cloth interiorscapes and nurseries It can be used to control any of the insects and nematodes listed below

**Outdoor Plants- Food Crops, Trees, Turf, Nursery, Ornamentals**

Use the tables below to determine the appropriate use rate for your site / pest combination Rates provided are in ounces of AzaGuard per area or row length

**Foliar Spray** Apply AzaGuard at the application rates in sufficient water to assure adequate coverage

Conventional application equipment Apply in a minimum of 30 gallons of water per acre  
Aerial equipment/ low / ultra low volume Apply AzaGuard at recommended rates in a minimum of 3 gallons of water per acre

High volume when plant foliage is dense or infestation is heavy use the higher label rate and increase spray gallonage to assure uniform coverage Treat early for best control When combining with other insecticides, use half the recommended rate of AzaGuard For optimum results ensure uniform and complete plant coverage

*NOTE When infestation is heavy or when plant canopy is dense AzaGuard may be used at a rate up to twice (2X) that shown in the Use Rate Table, not to exceed 22.5 oz AzaGuard / acre When combining with other insecticides, use half the recommended rate of AzaGuard*

USE RATES FOR OUTDOOR PLANTS INCLUDING FOOD CROPS, TREES, TURFGRASS, NURSERY, AND ALL OUTDOOR ORNAMENTAL PLANTS		
<u>PEST</u>	<u>RATE</u> Ounces of AzaGuard/ Acre	<u>REMARKS</u>
WHITEFLIES such as Greenhouse whiteflies, Silverleaf whiteflies Woolly whiteflies	8 21 fl oz	Use in combination with 0.25 – 1.0% non phytotoxic crop oil in sufficient water to cover undersides of leaves
LEAFMINERS, such as Azalea leafminers Birch Leafminers, Citrus leafminers Serpentine leafminers, Vegetable leafminers	10 16 fl oz	Use in combination with 0.25 – 1.0% non phytotoxic crop oil in sufficient water to cover undersides of leaves
SCALES such as Brown soft scales, California red scales, Coffee scales Olive scales San Jose scales	10 16 fl oz	Use in combination with 0.25 – 1.0% non phytotoxic crop oil in sufficient water to cover twigs and leaves
MEALY BUGS, such as Citrus mealybugs	10 16 fl oz	Use in combination with 0.25 – 1.0% non phytotoxic crop oil in sufficient water to cover twigs and leaves
GRASSHOPPERS and LOCUSTS	10 16 fl oz	Spray when pests first appear <u>For food crops</u> Repeat application after 7-10 days Use in combination with 0.25 – 1.0% non phytotoxic crop oil in sufficient water to cover undersides of leaves <u>For non food crops</u> Repeat application every 5 to 7 days
MITES such as Banks mite, Clover mite, Citrus Rust mite, Citrus Red mite, European Red Mite Hemlock Rust mite, Honey Locust mite Pacific mite Spruce mite, Two spotted Spider mite	10 16 fl oz	Use in combination with 0.25 – 1.0% non phytotoxic crop oil in sufficient water to cover twigs and leaves
THRIPS, such as Citrus thrips Onion thrips, Thrips palmi,	10 16 fl oz	Spray when pests first appear Repeat every 5 to 7 days
APHIDS, such as Cotton aphids, Green peach aphids Pea aphids, Potato aphids	10 16 fl oz	Spray when pests first appear <u>For food crops</u> Repeat application after 7-10 days Use in combination with 0.25 – 1.0% non phytotoxic crop oil in sufficient water to cover undersides of leaves <u>For non food crops</u> Repeat application every 5 to 7 days

PSYLLIDS such as Pear psylla	8 16 fl oz	Spray when pests first appear <u>For food crops</u> Repeat application after 7 10 days Use in combination with 0 25 – 1 0% non-phytotoxic crop oil in sufficient water to cover undersides of leaves <u>For non food crops</u> Repeat application every 5 to 7 days
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<b>USE RATES FOR OUTDOOR PLANTS INCLUDING FOOD CROPS, [TREES, TURFGRASS, NURSERY, AND ALL OUTDOOR ORNAMENTAL PLANTS]</b>		
<u>PEST</u>	<u>RATE</u> Ounces of AzaGuard/ Acre	<u>REMARKS</u>
LEAFHOPPERS such as Grape leafhoppers Potato Leafhopper Variegated Leafhopper	10 16 fl oz	Spray when pests first appear <u>For food crops</u> Repeat application after 7 10 days Use in combination with 0 25 – 1 0% non phytotoxic crop oil in sufficient water to cover undersides of leaves <u>For non food crops</u> Repeat application every 5 to 7 days
BUGS such as Boxelder bugs, Chinch bugs, Lygus bugs Spittle bugs, Stink bugs	10 16 fl oz	Spray nymphs early
Chafers such as European Chafer, Northern Masked Chafer, Rose Chafer	10 16 fl oz	Spray when pests first appear Repeat application every 5 to 7 days
FLIES such as Blueberry maggots Cherry maggots, Crane flies, Fruit flies, Midges, Onion maggots, Walnut husk flies, Fungus Gnat, Hessian Fly Marsh Crane Fly Melon Fly Midges Shore Fly	10 16 fl oz	<u>For food crops</u> Spray when pests first appear <u>For non food crops</u> Drench soil to kill larvae
SAWFLIES, such as European pine sawflies, Yellow headed pine sawflies	10 16 fl oz	Treat larvae early

USE RATES FOR OUTDOOR PLANTS INCLUDING FOOD CROPS, [TREES, TURFGRASS, NURSERY, AND ALL OUTDOOR ORNAMENTAL PLANTS]		
<u>PEST</u>	<u>RATE</u> Ounces of AzaGuard/ Acre	<u>REMARKS</u>
CATERPILLARS and MOTHS, such as Armyworms Beet Armyworm Fall Armyworm, Lawn Armyworm Southern Armyworm Yellowstriped Armyworm Artichoke plume moths, Bagworms, Black Cutworm Bollworms, Budworms Cabbage butterflies, Cabbage Loopers, Cankerworms Caseworms Citrus Cutworm Corn earworms Cutworms Diamond backed moths European Pine Shoot Moth Fall Cankerworm Fruitworms Grapeleaf skeletonizers Gypsy moths Hickory shuckworms Hornworms Imported cabbage worms Leaf perforators Leafrollers, Melonworms, Navel Orange worms Oblique banded leafrollers, Omnivorous leafrollers Oriental fruit moths, Pickle worms Pine tip moths Pinworms red banded leaf rollers, Sod webworms, Soybean loopers, Spring Cankerworm Tent caterpillars, Tobacco budworms, Tobacco Hornworm, Tomato Fruitworm Tomato Pinworm Tussock moths	8 16 fl oz	Spray when pests first appear <u>For food crops</u> Repeat application after 7 10 days Use in combination with 0 25 – 1 0% non phytotoxic crop oil in sufficient water to cover undersides of leaves <u>For non food crops</u> Repeat application every 5 to 7 days

USE RATES FOR OUTDOOR PLANTS INCLUDING FOOD CROPS, [TREES, TURFGRASS, NURSERY, AND ALL OUTDOOR ORNAMENTAL PLANTS]		
<u>PEST</u>	<u>RATE</u> Ounces of AzaGuard/ Acre	<u>REMARKS</u>
BEETLES and GRUBS, such as Bark Beetles, Blueberry flea beetles, Boll weevils, Colorado potato beetles Flea beetles	8 16	Spray when pests first appear <u>For food crops</u> Repeat application after 7-10 days Use in combination with 0 25 – 1 0% non phytotoxic crop oil in sufficient water to cover

Japanese beetles Leaf beetles, Mexican bean beetles, Pepper weevils Phylloxera, Rose Chafers, Twig girdlers Elm Leaf Beetle Cucumber Beetle, June Beetle		undersides of leaves <u>For non food crops</u> Repeat application every 5 to 7 days
WEEVILS, such as Black vine weevils Strawberry vine weevils	10 16 fl oz	Make foliar applications to deter adult feeding Make at least 3 to 4 applications 10 days apart
BORERS such as Peach twig borers Peachtree borers Dogwood borers Cranberry borers	10 16 fl oz	Spray soon after egg hatch <u>For food crops</u> Use in combination with 0.25% - 1.0% non phytotoxic crop oil in sufficient water to cover undersides of leaves
MOLE CRICKETS	10 16 fl oz	Spray nymphs soon after egg hatch
NEMATODES such as Burrowing nematodes Dagger nematodes, Golden nematodes Root knot nematodes	15	Apply in sufficient amount of water to penetrate in the soil to a depth of 12 inches Repeat applications every 3 or 4 weeks or as needed

\* When infestation is heavy or when plant canopy is dense AZAGUARD may be used at a rate up to twice (2X) that shown in the above table not to exceed 22.5 oz/acre When combining with other insecticides half the rate of AZAGUARD is recommended

<b>USE RATES FOR MUSHROOMS</b>		
<u>PEST</u>	<u>RATE</u> Ounces of AzaGuard/ 1000 sq ft	<u>REMARKS</u>
Mushroom flies, Nematodes, Phorid flies	0.5	Apply as drench to the casing layer, media or compost Make at least 4 to 5 applications 7 to 10 days apart To repel adults apply with fogging equipment at first sign of activity For mushroom house use mix into the casing layer or into media during the spawn run Can be applied between breaks until the final flush

<b>USE RATES FOR MANURE PILES</b>		
<u>PEST</u>	<u>RATE</u> Ounces of AzaGuard/ 1000 sq ft	<u>REMARKS</u>
Mushroom flies Nematodes, Phorid flies	0.5 fl oz	<b>For Manure Piles and Compost</b> Surface treat and incorporate using appropriate equipment when the manure piles are moist Avoid treating when manure is too wet Directly spray on to areas where flies are actively breeding



USE RATES FOR TURFGRASS		
Pest	Rate of AzaGuard per acre	Remarks
Sod Webworms Armyworms Grubs Cutworms Aphids Cinchbugs Billbugs Leafhoppers Ants and Chiggers	8 21 fl oz	Irrigate well before applying Use a suitable pressure sprayer and mix 1/2- 3/4 tablespoon in 3 gal of water and apply to 2 500 sq ft of turf Apply when insect larvae first appear Repeat application in 10 to 14 days if necessary The use of an approved spreader sticker may help the spray to penetrate turf down to the larvae/worm feeding area
Nematodes	15 fl oz	Apply in sufficient amount of water to penetrate in the soil to a depth of 12 inches Repeat applications every 3 or 4 weeks or as needed

AzaGuard can also be applied through sub surface soil treatment equipment (e g turf grass)

**For Use Indoors or in Greenhouses**

Use the table below to determine the appropriate use rate for each pest

**Application Methods**

**Foliar spray** Individual plants should be sprayed to thoroughly wet both sides of the leaves without causing runoff Groups of potted plants should be sprayed at a rate of one gallon of finished spray for 500 square feet For best results ensure uniform and complete plant coverage

**Hose End Sprayer** Follow use directions on manufacturers hose end sprayer Fill reservoir with AzaGuard Set sprayer to deliver a rate of 0 08 to 0 10 fl oz per gallon or a 1 1280 – 1 1600 dilution Spray this solution on the desired treatment surface

**32 oz Spray Bottle** For smaller applications, AzaGuard may be diluted into a 32 ounce hand held spray bottle Follow all label directions for use

- 1 Remove cap on side of bottle and fill with hot tap water to the fill line (Note fill line on bottle)
- 2 Peel up the resealable label containing ampoules on front of container Remove one ampoule Squeeze all contents of ampoule into container Close cap and shake vigorously Discard empty ampoule
- 3 Spray AzaGuard solution onto plants Thoroughly wet all surfaces of the plant

*Note Use entire container contents at the time of application Do not store diluted product*

**Soil Drench** This product is effective as a soil drench for controlling soil borne insect larvae (e.g. Fungus Gnats) Apply 1 pint of finished spray for each gallon of soil in the pot Apply to moderately moist soils Apply AzaGuard in sufficient water and for sufficient duration to distribute the application evenly through the entire treated area Use volumes that thoroughly wet the soil but do not cause significant surface runoff or excessive drip from pots

<b>USE RATES FOR ANY PLANT GROWN INDOORS OR IN GREENHOUSES, SHADECLOTH , INTERIORESCAPE AND NURSERIES</b>		
<u>PEST</u>	<u>RATE</u> Ounces of AzaGuard/ 100 gal water	<u>REMARKS</u>
WHITEFLIES such as Greenhouse whiteflies, Silverleaf whiteflies, Sweet potato Whitefly Woolly whiteflies	10 16 for 50 000 sq ft	Ensure good coverage to top and bottom of leaves against larvae and pupae Can be applied after bract formation on poinsettias (test for phytotoxicity prior to large scale use)

<b>USE RATES FOR ANY PLANT GROWN INDOORS OR IN GREENHOUSES, SHADECLOTH, INTERIORESCAPE AND NURSERIES</b>		
<u>PEST</u>	<u>RATE</u> Ounces of AzaGuard/ 100 gal water	<u>REMARKS</u>
LEAFMINERS such as Serpentine leafminers	10 16 for 50,000 sq ft	Spray early Make 2 to 3 applications in rotation with adulticides such as pyrethroids
SOFT SCALES	10 16 for 50 000 sq ft	Use in combination with 0 5 – 1 0% non phytotoxic crop oil in sufficient water to cover twigs and leaves
MEALY BUGS	8-16 for 40,000 sq ft	Always use in combination with 0 5 – 1 0% non – phytotoxic crop oil
THRIPS such as Western flower thrips	8 16 for 40,000 sq ft	Spray when pests first appear Repeat every 5 to 7 days

MITES such as Banks mite Clover mite, Citrus Rust mite Citrus Red mite European Red Mite, Hemlock Rust mite, Honey Locust mite Pacific mite Spruce mite Two spotted Spider mite	10 16 fl oz	Use in combination with 0.25 – 1.0% non phytotoxic crop oil in sufficient water to cover twigs and leaves
APHIDS, such as Green peach aphids Pea aphids, Cotton aphids, Rose aphids Apple Aphid Melon Aphid Potato Aphid	8 16 for 40 000 sq ft	Spray when pests first appear Addition of 0.5 – 1.0% non phytotoxic crop oil will enhance efficacy
LACEWINGS such as Azalea lacewings	8 16 for 40 000 sq ft	Spray when pests first appear
FLIES such as Crane flies Fungus gnats, Shore flies, Blueberry maggots, Caribbean Fruit Fly Cherry maggots, Fruit flies Hessian Fly, Marsh Crane Fly, Melon Fly Midges Onion maggots Walnut husk fly	8 16 for 40,000 sq ft	Add at least 1 pint of mixture per gallon pot as soil drench Repeat application every 7 days for 3 weeks For poinsettias, lilies and bedding plants, also make 1 application 10 to 15 days prior to shipping plants to prevent adult emergence

<b>USE RATES FOR ANY PLANT GROWN INDOORS OR IN GREENHOUSES, SHADECLOTH, INTERIORSCAPE AND NURSERIES</b>		
<u>PEST</u>	<u>RATE</u> Ounces of AzaGuard/ 100 gal water	<u>REMARKS</u>
CATERPILLARS such as Armyworms Bagworms Cutworms Leafhoppers, Leafrollers Loopers Spruce budworms Webworms	8 16 for 40 000 sq ft	Spray when pests first appear
BORERS such as Peachtree borers	10 16 for 50,000 sq ft	Spray when pests first appear Repeat as needed

BEETLES such as Bark beetles Flea beetles, Japanese beetles, Cucumber beetle	10 16 for 50,000 sq ft	Spray when pests first appear Repeat as needed
WEEVILS, such as Black vine weevils strawberry vine weevils	8 16 for 40 000 Sq ft	Make foliar applications to deter adult feeding Drench soil at a rate of 1 pint per gallon pot during spring and fall periods to control larvae Make at least 3 to 4 applications 10 days apart
NEMATODES, such as Burrowing nematodes Dagger nematodes Golden nematodes Root knot nematodes	8 16 for 40,000 sq ft	Drench at least 1 pint of mixture per gallon pot once a week for 4 weeks Avoid leaching – drench until moist to the touch For heavy infestations use twice the rate and drench more frequently

**USE SITES**

AzaGuard can be used on

**GREENHOUSE, MUSHROOM HOUSE, AND FIELD GROWN FOOD CROPS** Refer to label for complete list

**GREENHOUSE AND FIELD GROWN ORNAMENTAL PLANTS, TREES AND SHRUBS** Refer to label for complete list

**NON-FOOD USES** such as athletic fields barrier strips campsites cemeteries farmyards fence rows fuel storage areas, grasslands, pastures, rights of way, sheds soil banks uncultivated or fallow farmland vegetative barriers and fences, and areas surrounding agricultural farms or other buildings

**COMPOST AND MANURE TREATMENT** Manure or refuse piles, mulches, cull piles pretreatment for potting soils or compost for greenhouses, soil application with no mention of crops to be grown (potting soil top soil)

**COMMERCIAL AND INDUSTRIAL AREAS** Food and feed processing plants (fresh fruit and vegetable packing and processing), food marketing, food storage food distribution, feedlot operations, dairy operations and poultry farms to treat manure on and off site

**LAWNS, TURF AND TURFGRASS (including golf courses and athletic fields)**  
Bentgrass, Bermuda grass, Bluegrass, Centipede grass Fescue, Rye grass, St Augustine grass Wheatgrass Zoysia grass

## CHEMIGATION

### General Information

This product may be applied only through drip (trickle) or sprinkler (center pivot lateral move end tow, side roll, traveler, big gun, solid set or hand move), flood (basin) 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, you should 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

Dilute AzaGuard with water before introduction into the system use the diluted mixture within 8 hours Do not apply in irrigation water if the pH exceeds 7.0 The optimum pH for application is a range of 5.5 to 6.5 If needed, the pH of the irrigation water can be adjusted by use of a suitable buffering agent Agitation is necessary Apply at the rate recommended in the Directions for Use using sufficient water to achieve an even distribution within an 8 hour period Do not apply AzaGuard at a rate that exceeds 20 grams active ingredient per acre (22.5 fl oz of AzaGuard) If applying AzaGuard in combination with other products refer to the compatibility statement in the DIRECTIONS FOR USE section

### General Requirements -

- 1) Apply this product only through a drip system or sprinkler including center pivot, lateral move end tow, side (wheel) roll traveler big gun solid set, hand move flood (basin), furrow border or drip (trickle) irrigation systems Do not apply this product through any other type of irrigation system
- 2) Crop injury lack of effectiveness, or illegal pesticide residues in the crop can result from non uniform distribution of treated water
- 3) If you have questions about calibration you should contact State Extension Service specialists equipment manufacturers or other experts
- 4) 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
- 5) 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
- 6) Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas labor camps, businesses, day care centers, hospitals, in patient clinics, nursing homes or any public areas such as schools, parks, playgrounds, or other public facilities not including public roads or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses

- 7) Posting must conform to the following requirements Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas When there are no usual points of entry signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas The printed side of the sign should face away from the treated area towards the sensitive area The signs shall be printed in English Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period
- 8) All words shall consist of letters at least 2 5 inches tall, and all letters and the symbol shall be a color which sharply contrasts with their immediate background At the top of the sign shall be the words KEEP OUT followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word STOP Below the symbol shall be the words PESTICIDES IN IRRIGATION WATER

**Specific Requirements for Chemigation Systems Connected to Public Water Systems -**

- 1) 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
- 2) 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 the water from the public water system should be discharged 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
- 3) The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump
- 4) 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
- 5) 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
- 6) 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
- 7) Do not apply when wind speed favors drift beyond the area intended for treatment

**Specific Requirements for 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 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 (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being filled with a system interlock
- 7) Do not apply when wind speed favors drift beyond the area intended for treatment

#### **Specific Requirements for 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 for water source contamination from backflow if water flow stops
- 2) The 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 (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being filled with a system interlock

#### **Specific Requirements for 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 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 (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being filled with a system interlock

**Application Instructions -**

- 1) Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and entire injector system. Flush with clean water. Failure to provide a clean tank, void of scale or residues may cause product to lose effectiveness or strength.
- 2) Determine the treatment rates as indicated in the directions for use and make proper dilutions.
- 3) Prepare a solution in the chemical tank by filling the tank with the required water and then adding product as required. The product will immediately go into suspension without any required agitation.
- 4) Do not apply AzaGuard in conjunction with any other pesticides or fertilizers. This has the potential to cause reduced performance of the product. Avoid application in this manner.



**STORAGE AND DISPOSAL**

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

**Pesticide Storage** Store in original containers in a cool well vented area away from direct sunlight Do not allow product to become overheated in storage This may cause increased degradation of the product which will decrease product effectiveness In case of spill flood area with large quantities of water

**Pesticide Disposal** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility Open dumping is prohibited If wastes cannot be disposed of according to label directions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance

**Container Disposal** Nonrefillable container Do not reuse or refill this container Triple rinse container (or equivalent) promptly after emptying Triple rinse as follows Empty the remaining contents into application equipment or a mix tank Fill the container ¼ full with water and recap Shake for 10 seconds Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal Drain for 10 seconds after the flow begins to drip Repeat this procedure two more times Offer for recycling if available

**(For 2 ml ampoule and 32 oz spray bottle )**

**STORAGE AND DISPOSAL**

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

**Pesticide Storage** Store in original containers in areas inaccessible to children

For 2 ml ampoule

**Pesticide Disposal And Container Handling** Nonrefillable container Do not reuse or refill this container Place in trash or offer for recycling if available

For 32 oz spray bottle

**Pesticide Disposal And Container Handling** Refillable container Refill this container with pesticide only Do not reuse this container for any other purpose Place in trash or offer for recycling if available Call your local solid waste agency for disposal instructions

**WARRANTY**

**CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

NOTICE Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of BIOSAFE SYSTEMS LLC or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold BIOSAFE SYSTEMS and Seller harmless for any claims relating to such factors.

BIOSAFE SYSTEMS warrants that this product conforms to the *chemical* description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above when used in accordance with directions under normal use conditions. This warranty does not extend to the use of the product contrary to label instructions or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or BIOSAFE SYSTEMS, and Buyer and User assume the risk of any such use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BIOSAFE SYSTEMS MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESSED OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, in no event shall BIOSAFE SYSTEMS or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER AND THE EXCLUSIVE LIABILITY OF BIOSAFE SYSTEMS AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF BIOSAFE SYSTEMS OR SELLER, THE REPLACEMENT OF THE PRODUCT.

BIOSAFE SYSTEMS and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of BIOSAFE SYSTEMS.

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**Sublabel B Residential Uses**

# AzaGuard™

*(Alternate Brand Name NemaTol)*

## **BOTANICAL BASED INSECTICIDE / NEMATICIDE**

For home and garden use

For indoors and outdoor vegetables ornamentals, flowers trees shrubs container grown plants and interiorscapes

Controls and repels insects such as aphids armyworms beetles, budworms, cutworms, fungus gnats, houseflies, leafhoppers, leafminers, loopers leafrollers and other caterpillars mealybugs, mushroom flies (or sciarid flies), sawflies scales thrips, webworms, weevils whiteflies and plant parasitic nematodes such as burrowing, dagger golden and various root knot nematodes

**Active Ingredient**

Azadirachtin 3 00%

**Other Ingredients** 97 00%

**Total** 100 00%

Contains 0 28 lb (128 grams) of azadirachtin per gallon

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

**FIRST AID**

<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing</li> <li>• Rinse skin immediately with plenty of water for 15 20 minutes</li> <li>• Call a poison control center or doctor for treatment advice</li> </ul>
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 – 20 minutes</li> <li>• Remove contact lenses if present, after the first 5 minutes then continue rinsing eye</li> <li>• Call a poison control center or doctor for treatment advice</li> </ul>
Have the product container or label with you when calling a poison control center or doctor or going for treatment You may also contact 1 800 222 1222 for emergency medical treatment information	

See (back) (side) (inside) panel for additional precautionary statements and directions for use

**EPA Registration No** 70299-17 **Batch Code** \_\_\_\_\_

**EPA Establishment No** 070299 CT 001, 067441-IL 001

**Sold by**

BioSafe Systems LLC  
22 Meadow Street  
East Hartford, CT 06108  
(888) 273 3088

**Net Contents** (2 ml , 32 fl oz, 2 liter, 1 and 5 gallon)

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

CAUTION Harmful if inhaled or absorbed through skin Avoid contact with skin eyes or clothing Wash thoroughly with soap and water after handling Avoid breathing spray mist Remove contaminated clothing and wash clothing before use

**ENVIRONMENTAL HAZARDS**

This pesticide is toxic to birds and aquatic invertebrates To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems

**APPLICATION INSTRUCTIONS**

**DIRECTIONS FOR USE**

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

**READ ALL DIRECTIONS AND PRECAUTIONS BEFORE USE**

AzaGuard controls insects in the larval pupal, and nymphal stages by interfering with the metabolism of ecdysone Insects typically die between larval to larval larval to pupal nymph to nymph molts, or during adult eclosion

AzaGuard may be applied as directed to any food or non food crop up to and including the day of harvest

**Application Instructions**

- 1 Remove cap on side of bottle and fill with hot tap water to the fill line (Note fill line on bottle)
- 2 Peel up the resealable label containing ampoules on front of container Remove one ampoule Squeeze all contents of ampoule into container Close cap and shake vigorously Discard empty ampoule
- 3 Spray AzaGuard solution onto plants Thoroughly wet all surfaces of the plant

*Note Use entire container contents at the time of application Do not store diluted product*

**For optimum results, 2 to 3 applications made at 7 to 10 day intervals is recommended, unless otherwise specified** Foliar applications should be made to top and under sides of leaves Apply as a fine spray to both sides of leaf surfaces to run off Do not over apply

Make applications when insects first appear and are in their early larval stages Repeat applications every 7 days, or as needed When insect populations are high apply on a 3 4 day interval until insect numbers are reduced

**NOTE** This product has been evaluated for phytotoxicity on a wide range of plants. However, since all combinations or sequences of pesticide sprays including fertilizers, surfactants, and adjuvants have not been tested, spray a small area first to make certain no phytotoxicity occurs.

**ORNAMENTAL PLANTS**

AzaGuard controls the following pests on Ornamental Trees, Shrubs, Plants, Bedding Plants, Flowers, and Potted Plants such as:

**PESTS**

Leafminers	Aphids	Beetles
Soft Scales	Lacewings	Borers
Mealy Bugs	Flies	Nematodes
Thrips	Caterpillars	Weevils
Mites		

**FRUIT AND VEGETABLE CROPS**

AzaGuard controls the following pests on Fruit and Vegetable crops:

**PESTS**

Whiteflies	Sawflies	Chafers
Leafminers	Caterpillars	Flies
Scales	Moths	Leafhoppers
Mealy Bugs	Beetles	Bugs
Grasshoppers	Grubs	Psyllids
Locusts	Weevils	Aphids
Nematodes	Mites	Borers
Thrips	Mole Crickets	

**CROPS**

Broccoli	Lettuce	Spinach
Potatoes	Sweet Potatoes	Radishes
Turnips	Beans	Eggplants
Tomatoes	Peppers	Cucurbits
Squash	Melons	Berries
Stone Fruits	Apples	Pears
Garlic	Onions	Asparagus
Corn	Herbs	Strawberries

**STORAGE AND DISPOSAL**

Do not contaminate water food or feed by storage or disposal

**Pesticide Storage** Store in original containers in areas inaccessible to children

**For 2 ml ampoule**

**Pesticide Disposal And Container Handling** Nonrefillable container Do not reuse or refill this container Place in trash or offer for recycling if available

**For 32 oz spray bottle**

**Pesticide Disposal And Container Handling** Refillable container Refill this container with pesticide only Do not reuse this container for any other purpose Place in trash or offer for recycling if available Call your local solid waste agency for disposal instructions

**WARRANTY**

This material conforms to the description on the label and is reasonably fit for the purposes referred to in the directions for use To the extent consistent with applicable law the seller shall not be liable for timing, unfavorable temperatures water conditions presence of other materials method of application weather, watering practices, nature of soil, disease problem, condition of crop incompatibility with other chemicals, pre existing conditions and other conditions influencing the use of this product Buyer assumes all risks associated with the use storage, or handling of this material not in strict accordance with directions given herewith **NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY IS MADE**

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(Note to Reviewer This secondary container will be used only when the product is diluted in accordance with directions for use)

[Secondary Container Label for Diluted Product]

# AzaGuard™

(User Prepared Ready to Use Solution)

EPA Registration No 70299 17

**Active Ingredient in Concentrated Product**

Azadirachtin	3 00%
<b>Other Ingredients</b>	97 00%
<b>Total</b>	100 00%

Contains 0 28 lb (128 grams) of azadirachtin per gallon

The product in this container is diluted as directed on the pesticide product label

Follow the directions for use on the pesticide label when applying this product

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

**[Application Instructions**

- 4 Remove cap on side of bottle and fill with hot tap water to the fill line (Note fill line on bottle)
- 5 Peel up the resealable label containing ampoules on front of container Remove one ampoule Squeeze all contents of ampoule into container Close cap and shake vigorously Discard empty ampoule
- 6 Spray AzaGuard solution onto plants Thoroughly wet all surfaces of the plant

*Note Use entire container contents at the time of application Do not store diluted product ]*

**Sold by**

BioSafe Systems LLC  
22 Meadow Street  
East Hartford, CT 06108  
(888) 273 3088

(Note to reviewer Language in [ ] is optional or interchangeable)

### Optional Label Claims

- Insecticide
- Nematicide
- Larvaecide
- Antifeedant
- Insect Repellant
- Ovicide
- Miticide
- Reproduction Inhibitor
- Insect Growth Regulator
- Multiple Modes of Action
- Controls insects
- Does not promote insect resistance
- Botanical based active ingredient
- Plant based Insecticide
- Azadirachtin Made from seeds of the Neem Tree
- Bio insecticide from the Neem Tree *Azadirachta Indica*
- Reduces crop damage
- Spray right up to the time of harvest
- Compliments IPM programs
- Alternative to conventional insecticides
- Only a 4 hour Re Entry Interval
- For Indoor and Outdoor Use
- For use on turf grass outdoor shrubs trees and ornamentals
- For ornamental greenhouse shade house, interiorscape and nursery use
- For mushroom house use
- For use on food crops
- To control and repel insects such as aphids, armyworms, beetles budworms, cutworms, fungus gnats, leafhoppers, leafminers, leafrollers, lepidopterous larvae, loopers mushroom flies sawflies, thrips webworms, and whiteflies and plant parasitic nematodes such as dagger, golden, and root knot nematodes
- For residential and commercial lawn, flowers and vegetable gardens, farms, forests, sod farms, nurseries, greenhouse food and ornamental plants, mushroom houses, nursery plants interiorscapes, landscapes, turfgrasses and golf courses
- Use as a spray, drench, fog, or chemigation
- Botanical Based Pesticide
- Plant Based Active Ingredient
- Concentrate
- Zero day pre harvest interval
- Effective against soil borne and foliar pests
- For use in packinghouses
- One application per ampoule
- 3 applications
- Easy to Use
- Mix and Spray



- Home and Garden Insecticide
- For residential greenhouses gardens flowers, shrubs plants trees houseplants and vegetables
- For indoor and outdoor use
- Control on many insects as listed on this label
- Controls insects without harming plants
- EPA Registered
- Just Add Water
- Dissolves completely
- Ready to Use Spray Bottle
- 1 Ampoule + Water = 32 Fl oz of insecticide
- Built in Refills
- Easy to Fill Bottle
- This container makes three 32 fl oz containers
- Just remove cap on side of bottle and fill with ampoule contents and water
- Made in the USA
- Use on vegetable crops, flowers and grasses
- Works on tomatoes, peppers lettuce, squash, pumpkins and cucumbers
- Works on strawberries apples blueberries citrus fruit pears
- Works on African violets begonias geraniums peony phlox tulip, azaleas lilacs rhododendrons roses hydrangeas boxwoods and more
- Works on birch trees oak spruce/pine crabapples dogwood cherry magnolia cypress and more
- Another sustainable product from BioSafe Systems
- Try BioSafe Systems full line of lawn care products
- A green thumb is good A green brain is better
- Visit [agreenbrain.com](http://agreenbrain.com)