Department of Agriculture
STATE OF HAWAII

LICENSED

PERIOD 2013-2015 LIC. NO. 9836.61

AZATIN® O

Biological Insecticide

INSECT GROWTH REGULATOR

FOR INDOOR AND OUTDOOR USE ON ORNAMENTALS, TURF (INCLUDING COMMERCIAL LAWNS), VEGETABLES, AND OTHER HORTICULTURAL CROPS

ACTIVE INGREDIENT:
Azadirachtin 4.5%
OTHER INGREDIENTS: 95.5%
TOTAL: 100.0%

This product contains 0.39 lb. (175 g) of azadirachtin per US gallon.

OMRI LISTED
For Organic Use

CAN BE USED IN ORGANIC PRODUCTION

EPA Reg. No.: 70051-9-59807
EPA Est. No.: 39578-TX-01

If you have questions or comments regarding the use of this product, please call 1-800-356-4647.

KEEP OUT OF REACH OF CHILDREN

CAUTION

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

See inside for additional Precautionary Statements and Directions for Use.

981221
Net Contents:
1 Quart (32 fl. oz.) (946 mL)

ohp Partners with solutions

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Avoid contact with skin, eyes or clothing. Harmful if swallowed or inhaled. Avoid breathing vapors or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

FIRST AID

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

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 to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

Hot Line Number: 1-800-356-4647.

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, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride (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 may be 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.

PHYSICAL AND CHEMICAL HAZARDS

Combustible: Do not use or store near heat or open flame.

DIRECTIONS FOR USE

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

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

AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow workers 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, butyl rubber, nitrile rubber, neoprene rubber, 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 Standards for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, 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.

INSECTS AND OTHER PESTS CONTROLLED BY AZATIN O

Aphids and Adelgids, such as:

Apple Aphid
Blackmargined Aphid
Cabbage Aphid
Cotton Aphid
Filbert Aphid
Green Peach Aphid
Melon Aphid
Pea Aphid
Potato Aphid
Red Aphid
Rose Aphid
Wooly Apple Aphid
Cooley Spruce Adelgid
Eastern Spruce Gall Adelgid
Pine Bark Adelgid
Wooly Hemlock Adelgid

Beetle Larvae, Weevil Larvae, and Grubs, such as:

Bark Beetles
Bean Leaf Beetle
Billbugs
Black Vine Weevil
Blister Beetles
Bluegrass Weevil
Boll Weevil
Chafers *(see list below)*
Chestnut Weevil
Colorado Potato Beetle
Cucumber Beetles
Douglas Fir Beetle
Elm Leaf Beetle
Flea Beetles
Japanese Beetle
Japanese Weevil
June Beetles
May Beetle
Mountain Pine Beetle
Mexican Bean Beetle
Pecan Weevil
Pine Root Collar Weevil
Potato Flea Beetle
Southern Pine Beetle
Strawberry Beetles
Strawberry Root Weevil
Strawberry Weevil
Twig Girdlers
White-fringed Beetle
White Pine Weevil
Wireworms

INSECTS AND OTHER PESTS CONTROLLED BY AZATIN O *(continued)*

Borers, such as:

Azalea Stem Borer
Bronze Birch Borer
Dogwood Borer
Dogwood Twig Borer
Iris Borer
Lilac Borer
Mint Root Borer
Oak Borer
European Corn Borer
Peachtree Borer
Peach Twig Borer
Southwestern Corn Borer
Squash vine borer
Rhododendron Borer

Bugs, such as:

Boxelder Bug
Chinch Bug
Lygus Bugs
Stink Bugs (all types)
Squash Bugs

Cankerworms, such as:

Elm Spanworm
Fall Cankerworm
Linden Looper
Spring Cankerworm

Armyworms, Bollworms, Budworms, Caterpillars, Fruitworms, Loopers, Webworms, and Other Worms *(Lepidoptera larvae)*, such as:

Armyworms
Bagworms
Beet Armyworm
Bollworm
Borers *(see list above)*
Cabbage Looper
Cabbage Butterfly
Cherry Fruitworm
Corn Earworm
Cutworms *(see list below)*
Dagger Moth
Diamondback Moth
Fall Armyworm
Grapefruit Worm
Grape Leaffolder
Grapeleaf Skeletonizer
Hickory Shuckworm
Hornworms
Imported Cabbageworm
Lawn Armyworm
Leafrollers *(see list below)*
Linden Looper
Melon Worm
Melon Rindworm
Moth Larvae *(see list below)*
Navel Orangeworm
Pecan Nut Casebearer
Pickleworms
Pink bollworm
Rindworm
Red-humped Caterpillar
Saltmarsh Caterpillar

INSECTS AND OTHER PESTS CONTROLLED BY AZATIN O *(continued)*

Armyworms, Bollworms, Budworms, Caterpillars, Fruitworms, Loopers, Webworms, and Other Worms *(Lepidoptera larvae)*, such as: *(continued)*

Southern Armyworm
Soybean Looper
Spruce Budworm
Tent Caterpillar
Tobacco Budworm
Tobacco Hornworm
Tomato Fruitworm
Tomato Hornworm
Tomato Pinworm
Walnut Caterpillar
Western Grapeleaf Skeletonizer
Western Spruce Budworm
Western Yellowstriped Armyworm
Yellowstriped Armyworm

Chafers, such as:

European Chafer
Northern Masked Chafer
Rose Chafer
Southern Masked Chafer

Crickets, such as:

Mole Cricket
Mormon Cricket

Cutworms, such as:

Black Cutworm
Citrus Cutworm
Climbing Cutworm
Western Bean Cutworm
Variegated Cutworm

Grasshoppers and Locusts

Leaffolders and Leaftiers

Leafhoppers, such as:

Aster Leafhopper
Grape Leafhopper
Potato Leafhopper
Variegated Leafhopper

INSECTS AND OTHER PESTS CONTROLLED BY AZATIN O *(continued)*

Leafminers, such as:

Boxwood Leafminer
Citrus Leafminer
Elm Leafminer
Holly Leafminer
Pea Leafminer
Serpentine Leafminer
Vegetable Leafminer

Leafrollers, such as:

Blueberry Leafroller
Filbert Leafroller
Fruittree Leafroller
Grape Leafroller
Obliquebanded Leafroller
Omnivorous Leafroller
Pandemis Leafroller

Leaf perforators

Maggots (Fly larvae), such as:

Cabbage Maggot
Caribbean Fruit Fly
Crane Fly
Fruit flies
Fungus Gnat
Hessian Fly
Leatherjackets
Mediterranean Fruit Fly
Mushroom Fly
Melon Fly
Onion Maggot
Oriental Fruit Fly
Phorid Flies
Seed Corn Maggot
Sciarid Flies
Shore Fly
Walnut Husk Fly

Marsh Flies, Crane Flies, and Leatherjackets

Mealybugs

Midges, such as:

Chrysanthemum Gall Midge
Douglas Fir Midge
Rose Midge

Millipedes

INSECTS AND OTHER PESTS CONTROLLED BY AZATIN O *(continued)*

Moth larvae, such as:

Artichoke Plume Moth	Gypsy Moth	Sunflower Moth
Codling Moth	Light Brown Apple Moth	Tiger Moth
Diamondback Moth	Oriental Fruit Moth	Tufted Apple Bud Moth
European Pine Shoot Moth	Pine Tip Moth	Tussock Moth
European Grapevine Moth	Sunflower Bud Moth	

Nematodes (suppression)

Phylloxera, such as:

Grape Phylloxera	Pecan Leaf Phylloxera	Pecan Stem Phylloxera

Psyllids, such as:

Asian Citrus Psyllid	Potato Psyllid	Tomato Psyllid
Pear Psylla		

Sawflies

Scale insects, such as:

Azalea Bark Scale	Fern Scale	Purple Scale
Black Scale	Florida Red Scale	Rose Scale
Brown Soft Scale	Frosted Scales	San Jose Scale
California Red Scale	Green Scale	Sugar Pine Scale
Calico Scale	Juniper Scale	Tea Scale
Camellia Scale	Pine Needle Scale	Wax Scale
Cottony-cushion Scale		

Sowbugs (Pillbugs)

Spittlebugs

INSECTS AND OTHER PESTS CONTROLLED BY AZATIN O *(continued)*

Thrips, such as:

Citrus Thrips	Melon Thrips	*Thrips palmi* (Melon Thrips)
Flower Thrips	Onion Thrips	Western Flower Thrips
Gladiolus Thrips	Pear Thrips	

Webworms, such as:

Fall Webworm	Lesser Webworm	Sod Webworm
Garden Webworm		

Whiteflies, such as:

Ash Whitefly	Cloudy-winged Whitefly	Sweetpotato Whitefly
Banded-wing Whitefly	Greenhouse Whitefly	Variegated Whitefly
Bayberry Whitefly	Silverleaf Whitefly	Wooly Whitefly
Citrus Whitefly		

CROPS ON WHICH AZATIN O CAN BE USED

AZATIN O can be used on the following crops and in the following situations:

- Greenhouses and other covered structures (including lath and shade), interiorscapes, turf, nurseries, and landscapes: For use on ornamental plants (foliage and flowering plants, cut flowers, greens, shrubs), herbs, spices, vegetables, melons, strawberries, and other food crops raised to harvest or food crop plants raised for commercial resale, and nursery stock (including bearing and non-bearing fruit trees and grapevines).
- For all outdoor grown non-food crops including non-bearing fruit trees and other field grown foliage, flowering and ornamental plants.
- Can be used indoors and outdoors. Plants may be potted, grown in soil or soilless mixtures, or grown hydroponically.

CROPS ON WHICH AZATIN O CAN BE USED *(continued)*

Bedding Plants, Foliage plants, Flowers, Potted Plants, and other Ornamental Plants, such as:

Actinopteris	Chrysanthemum	Geranium	Phlox
African Violet	Cineraria	Gerbera	Photinia
Ageratum	Coleus	Gladioli	Pinks
Aglaonema	Columbine	Gloxinia	Pittosporum
Allamanda	Cyclamen	Gypsophilla	Poinsettia
Algerian Ivy	Daffodil	Hedera	Portulaca
Alocasia	Dahlia	Hibiscus	Primrose
Anthurium	Daisy	Hyacinth	Pothos
Aphelandra	Daylily	Hydrangea	Rosemary
Artemisia	Delphinium	Impatiens	Rose
Aster	Dianthus	Iris	Rubberplant
Aucuba Illex	Dieffenbachia	Ivy (all types)	Salvia
Azalea	Dracaena	Lily (all types)	Schefflera
Baby's Breath	Dusty Miller	Maidenhair Fern	Sedum
Begonia	Easter Lily	Mandavilla	Sempervivum
Bougainvillea	English Ivy	Marigold	Snapdragon
Boston Fern	Euphorbia	Narcissus	Spathiphyllum
Boxwood	Fern	Nasturtium	Stock
Brachycome	Ficus	Orchid (all types)	Syngonium
Cacti	Foliage Plants	Pansy	Tulip
Calabrese	Foxglove	Pelargonium	Verbena
Caladium	Freesia	Peony	Vinca
Calla	Fuchsia	Peperomia	Wandering Jew
Calathea	Gaillardia	Petunia	Yucca
Calendula	Gardenia	Philodendron	Zinnia
Carnation			

CROPS ON WHICH AZATIN O CAN BE USED *(continued)*

Brassica (Cole) Crops, such as:

Bok Choy	Cauliflower	Cavalo Broccolo	Mustard Greens
Broccoli	Chinese Cabbage (Bok Choy, Gai Lon, Napa)	Collards	Mizuna
Broccoli Raab		Kale	Rapini
Brussels Sprouts		Kohlrabi	Turnip Tops
Cabbage			

Bulb Vegetables, such as:

Garlic	Leek	Onion (all types)	Shallot

Citrus Fruits, such as:

Calamondin	Kumquat	Mandarin (Tangerine)	Pummelo
Citrus citron	Lemon	Orange (all types)	Satsuma Mandarin
Grapefruit	Lime		

Cucurbit Vegetables, such as:

Balsam pear (Bitter Melon)	Citron Melon	Honeyballs	Pumpkin
Cantaloupe	Crenshaw	Honeydew	Squash (all types)
Casaba	Cucumber	Mango Melon	Watermelon
Chinese Waxgourd	Gherkin	Muskmelon	Other Melons
	Gourds		

Fruiting Vegetables, such as:

Eggplant	Okra	Peppers (all types)	Tomato
Ground Cherry	Pepino	Tomatillo	

CROPS ON WHICH AZATIN O CAN BE USED *(continued)*

Herbs and Spices, such as:

Allspice
Angelica
Anise
Annatto
Balm
Basil
Borage
Burnet
Camomile
Caper Buds
Caraway
Cardamom
Cassia
Catnip
Celery Seed
Chives
Cilantro
Cinnamon
Cloves
Coriander
Costmary
Cumin
Curry Leaf
Dill
Fennel
Fenugreek
Horehound
Hyssop
Juniper Berry
Lavender
Lemongrass
Lovage
Mace
Marigold
Marjoram
Mint
Mustard Seed
Nasturtium
Nutmeg
Pennyroyal
Pepper (Black or White)
Poppy Seed
Rosemary
Rue
Saffron
Sage
Savory
Spearmint
Sweet Basil
Sweet Bay
Tansy
Tarragon
Thyme
Vanilla
Wintergreen
Woodruff
Wormwood

Leafy Vegetables, such as:

Arugula
Cardoon
Celery
Celtuce
Chervil
Chinese Celery
Chinese Spinach
Corn Salad (Mâche)
Chrysanthemum (Edible)
Cress (all types)
Dandelion
Dock (Sorrel)
Endive (Escarole)
Fennel
Lettuce (all types)
Orach
Parsley
Purslane
Radicchio
Rhubarb
Spinach
Swiss Chard

CROPS ON WHICH AZATIN O CAN BE USED *(continued)*

Ornamental Trees and Shrubs, such as:

Andromeda
Arborvitae
Ash
Aucuba Ilex
Austrian Pine
Azalea
Beech
Birch
Birdsnest Spruce
Blue Spruce
Boxwood
Butternut
Cacti
Camellia
Ceanothus
Cedar
Chamaecyparis
Cherry
Cotoneaster
Crabapple
Cyprus
Dogwood
Douglas Fir
Elm
Euonymus
Ficus
Firethorn
Forsythia
Hackberry
Hawthorn
Hemlock
Hibiscus
Hickory
Holly
Honey Locust
Horse Chestnut
Hydrangea
Juniper
Larch
Laurel
Lilac
Linden
London Plane
Magnolia
Mandevilla
Maple (all types)
Mimosa
Mountain Ash
Myrtle
Oak
Pachysandra
Peach
Photinia
Pine (all types)
Pittosporum
Planetree
Poplar
Privet
Pyracantha
Quince
Rhododendron
Rose
Rubber Plant
Spruce
Sycamore
White Cedar
White Pine
Yew
Yucca

Pome Fruits, such as:

Apple
Crabapple
Jujube
Loquat
Mayhaw
Pear
Quince

CROPS ON WHICH AZATIN O CAN BE USED *(continued)*

Root and Tuber Crops, such as:

Beet (all types)
Carrot
Cassava
Celeriac
Chervil
Daikon
Dasheen (taro)
Ginger
Ginseng
Horseradish
Japanese radish
Jicama
Parsnip
Potato
Radish
Rutabaga
Salisfy
Sugarbeet
Sweet Potato
Turmeric
Turnip
Yam
Yam bean

Small Fruits and Berries, such as:

Blackberry (all types)
Blueberry
Boysenberry
Currant
Dew Berry
Elderberry
Gooseberry
Grapes (all types)
Huckleberry
Loganberry
Olives
Olallieberry
Raspberry
Strawberry
Youngberry

Stone Fruits, such as:

Apricot
Aprium
Cherry (all types)
Nectarine
Peach
Plum
Plumcot
Pluot
Prune

Tree Nuts, such as:

Almond
Beech Nut
Brazil Nut
Butternut
Cashew
Chestnut
Chinquapin
Filberts (Hazelnuts)
Hickory Nuts
Macadamia
Pecan
Pistachio
Walnuts

Tropical and Subtropical Fruits, such as:

Banana
Plantain

CROPS ON WHICH AZATIN O CAN BE USED *(continued)*

Turfgrass, such as:

Annual Bluegrass
Annual Ryegrass
Bentgrass
Bermuda grass
Centipede Grass
Fescue
Perennial Ryegrass
St. Augustine Grass
Seashore Paspalum
Wheatgrass
Zoysia Grass

Miscellaneous Crops, such as:

Artichoke
Asparagus
Birdseed
Cacao
Coffee
Corn (all types)
Edible flowers
Feijoa
Figs
Hops
Guayule
Kiwi
Mushrooms (all types)
Palm
Pawpaw
Persimmon
Pineapple
Pomegranate
Tamarillo
Tea
Tobacco
Waterchestnut
Watercress

Important note: This product has been evaluated for phytotoxicity on a wide range of crops. 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 that no phytotoxicity occurs.

PREHARVEST INTERVAL

AZATIN O can be applied up to and including the day of harvest (zero PHI). Individual state regulations may vary and should be consulted for allowable preharvest interval.

MODE OF ACTION

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

SPRAY EQUIPMENT

Use any suitable application equipment that allows for uniform coverage of the targeted treatment area, such as hand- or power-operated spray equipment.

GENERAL APPLICATION DIRECTIONS

General Information

- Broad Spectrum Insect Growth Regulator Insecticide
- Not for use in food-handling establishments.
- Shake well before using.
- Kills only immature stages (larvae or nymphs) of insects. Treated larvae may die as pupae.
- Make applications when pests first appear and are in their early larval stages. Repeat applications every 7 days or as needed.
- Botanical Insecticide Concentrate.
- Formulated for interiorscape use.
- For indoor and outdoor use.
- 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 **AZATIN O** 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.
- **AZATIN O** 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.
- Use with care when applying near streams, ponds, lakes or bodies of water.

- Do not apply **AZATIN O** when weather conditions favor drift or the likelihood of runoff is high.
- For best results, add a spreader-sticker or oil-based adjuvant (such as methylated seed oil) at the label rate.

This product may be pre-mixed in a supply tank with water, fertilizer or other appropriate agricultural chemicals. Agitation is necessary (see Mixing Directions). Crop injury or lack of effectiveness can result if uniform distribution is not achieved.

When pest populations are high, use the higher label rates.

SPRAY APPLICATION:

High volume: If plant foliage is dense, use higher label rates and increase spray volume to obtain uniform and complete coverage.

Low and ultra-low volume: Apply **AZATIN O** at rates of 4 to 16 fluid ounces per acre in a minimum of 3 gallons of water per acre. For best results, ensure uniform and complete plant coverage.

DRENCH APPLICATION:

AZATIN O is effective as a soil drench for control of soil-dwelling insect larvae such as fungus gnats. It is also effective as a soil drench for control of both foliar and soil-dwelling pests, particularly when alternated with foliar sprays of **AZATIN O**.

Apply **AZATIN O** in sufficient water and for sufficient duration so as to distribute the application rate evenly to the entire treated area.

Apply to moderately moist soils. Use volumes that thoroughly wet the soil, but do not cause significant surface runoff or excessive drip from pots.

CHEMIGATION:

Refer to the attached "Chemigation Bulletin" for use directions for chemigation. Do not apply this product through any irrigation system not specifically included in the Chemigation Bulletin.

MIXING DIRECTIONS:

AZATIN O must be mixed with water for application. Do not apply undiluted product to plants. For best results:

1. Use clean equipment and clean water.
2. Add 1/2 to 3/4 of total water volume to the tank and begin agitation.
3. Add pesticide to the tank.
4. Add water up to full intended spray volume and mix thoroughly before applying.
5. Adjust pH of the spray solution to between 3 and 7, if necessary.
6. Apply pesticide mix immediately after mixing.
7. If the mixture is not applied immediately, agitate before application.
8. Thoroughly clean equipment following application.

TANK MIXTURES OR FLUID FERTILIZERS:

1. Before using this product in a tank mix with fertilizer or registered pesticide, determine compatibility by conducting a compatibility test with a small amount of each product.
2. Observe all cautions and limitations on labels of all products used in combination.
3. Follow all tank mix directions and observe limitations listed in the combination product(s) label.

COMPATIBILITY TEST:

Perform a compatibility test before tank mixing this product with other product(s) or liquid fertilizer(s). Fill three separate 1 quart jars with 1 pint of water and fertilizer. To a first jar add this product and mix well. To a second jar, add the desired other tank mix product(s) and mix well. To a third jar, combine this product with the other tank mix product(s) and mix well. If more than one product is used, add them separately with dry formulations first, flowables next, and emulsifiable concentrates last. After

each addition, shake or stir gently to thoroughly mix. For the appropriate amount of product for this test use the following:

Dry products - For each pound to be applied per acre, add 1.5 level teaspoons to each jar.

Liquid products - For each pint to be applied per acre, add 0.5 teaspoons or 2.5 ml to each jar.

Note any differences between the mixtures in the jars (compounds alone vs mixtures) after 15 minutes. Look for evidence of physical incompatibility such as clumping, precipitation, oily residues on the sides of the glass or other signs of incompatibility. If either mixture separates, but can be readily re-mixed, the mixture can be sprayed as long as good agitation is used. If the mixtures are incompatible, do not use the mixture.

TANK MIX COMPATIBILITY

AZATIN O Biological 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* ***AZATIN O*** *in a tank mix combination.* Do not mix **AZATIN O** with oxidizing agents such as bleach, or strong acids and bases as they will destabilize the product.

GENERAL DIRECTIONS FOR INTERIORSCAPES, ORNAMENTAL PLANTS, LANDSCAPES, TREES, SHRUBS, LAWNS, TURF, AND GREENHOUSES

For use to control whiteflies, thrips, mealybugs, leafminers, loopers, caterpillars, beet armyworms, aphids, and other pests on bedding plants, potted plants, foliage plants, ornamentals, trees, and shrubs in and around greenhouses, commercial nurseries, and interiorscapes.

For use to control insect pests of field-grown cut flowers and greens.

For use to control gypsy moths, weevils, psyllids, webworms, hornworms, spruce budworms, tent caterpillars, sawflies, and other pests on trees and shrubs in commercial landscapes.

AZATIN O may be used on fruits, vegetables, vegetable transplants, and herbs both inside and outside of the greenhouse.

Apply 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 Field-Grown Cut Flowers and other Field-Grown Ornamental Plants: Apply **AZATIN O** at 4 – 16 fluid ounces per acre in sufficient volume of water to achieve uniform and thorough spray coverage. For conventional ground application equipment, apply 30 – 100 gallons of spray mix per acre. For low volume application, apply 0.5 pint (8 fluid ounces) of **AZATIN O** per acre in sufficient water to provide adequate coverage.

For Use in Greenhouses, Landscapes, Interiorscapes, and Nurseries: Dilute **AZATIN O** at 4 – 16 fluid ounces per 100 gallons of water. Mix thoroughly. Apply at 25 – 40 psi with hand sprayer or 100 – 200 psi with power sprayer as a fine spray to all foliage and fruit surfaces to runoff (typically 1 – 2 gallons of spray solution per 1,000 sq. ft.). Avoid excessive application.

For drench applications, use 8 – 16 fluid ounces of **AZATIN O** per 100 gallons of water and apply at the rate of 1 quart of diluted solution per square foot of growing media surface. Repeat at 14-day intervals during the growing season.

SPECIFIC PLANT/PEST DIRECTIONS:

Application Rates for Whiteflies and Other Key Insect Pests in Greenhouses (Including Lathe and Shade), Nurseries, Mushroom Houses, and Interiorscapes.

Apply **AZATIN O** at the indicated dilution rate per 100 gallons of water. Use 1 – 2 gallons of spray solution per 1,000 square feet to ensure adequate plant coverage.

Pests controlled by AZATIN O	Rate of AZATIN O per 100 gallons of water	Remarks
Aphids	10 – 16 fl. oz.	Suppression of nymphs and adult feeding deterrence.
Black Vine Weevil	16 fl. oz.	Apply as soil drench against larvae.
Caterpillars & Worms, including: Armyworms, Bagworms, Cankerworms, Cutworms, Gypsy Moth, Leafrollers, Tent Caterpillars, and other Lepidoptera larvae	4 – 16 fl. oz.	For foliar application against larvae.
Fungus Gnats	8 fl. oz.	Apply as a soil drench for maggot control.
Leafminers	6 – 16 fl. oz.	For foliar application against larvae.

Application Rates for Whiteflies and Other Key Insect Pests in Greenhouses (Including Lathe and Shade), Nurseries, Mushroom Houses, and Interiorscapes. ***(continued)***

Pests controlled by AZATIN O	Rate of AZATIN O per 100 gallons of water	Remarks
Mushroom Fly	16 fl. oz.	Apply as soil drench against larvae.
Western Flower Thrips	12 – 16 fl. oz.	Suppression of larvae and adult feeding deterrence.
Whiteflies, including: Greenhouse Whitefly, Silverleaf Whitefly, and Sweetpotato Whitefly	6 – 16 fl. oz.	Foliar application against nymphs. Spray should be directed to undersides of leaves.
Others, such as: Leafhoppers, Sawflies	10 – 16 fl. oz.	For foliar application against larvae or nymphs. For leafhoppers, spray should be directed to undersides of leaves.

DIRECTIONS FOR REPELLING JAPANESE BEETLES FROM ROSE PLANTS

For best results, apply to roses at the first sign of Japanese beetle emergence in early summer at the rate of 0.5 pint of **AZATIN O** per 100 gallons of water.

AZATIN O is more effective when used as a preventative.

Spray to run-off, making sure to completely cover all parts of the plant, including buds and flowers.

Repeat application weekly, after rainfall or during periods of rapid plant growth as new growth that occurs after application is not fully protected. Continue applications as long as adult beetles are present.

Do not spray water directly onto foliage or otherwise wash off the leaves after treatment. This will reduce the effectiveness of the application.

After initial application, some beetles may be present on foliage but they will not feed on it.

DIRECTIONS FOR LAWNS AND TURF

Surface-Feeding Insects:

For use to control cutworms, armyworms, sod webworms, crickets, chinch bugs, leafhoppers, and grasshoppers.

Apply at first sign of pest presence or damage to turf. Do not apply if rain is forecast within the next 24 hours.

Apply 1 quart – 3 gallons of **AZATIN O** per acre (or 0.75 – 9 fluid ounces per 1,000 square feet) using enough spray volume to obtain thorough coverage and penetration of the turf canopy. Use 2 – 5 gallons of diluted material per 1,000 square feet, or 50 – 100 gallons of diluted material per acre.

The treated area may be lightly irrigated for 3 – 5 minutes after application if desired to increase penetration of the turf surface. However, do not water turf again for 2 days after application.

Reapply as needed to maintain control of turf damage. Be sure to treat under shrubs and plants bordering houses or other structures.

Subsurface-Feeding Insects:
Mow and irrigate turf prior to application. The treated area may be lightly irrigated for 3 – 5 minutes after application if desired to increase penetration of the turf surface. Do not water turf again within 24 hours after application. Do not mow again within 3 days after application.

For use to control white grubs (Japanese beetles, European chafers, dung beetles, June beetles, green June beetles, May beetles, annual white grubs, grub beetles, southern masked chafers, etc.) and crane fly larvae (leatherjackets):

- For white grubs, make application soon after adults emerge in summer (1 – 3 weeks after first sign of adults). Leatherjackets should be targeted as young larvae while feeding near the soil surface.
- Apply 1 quart – 3 gallons of **AZATIN O** per acre (0.75 – 9 fluid ounces per 1,000 square feet) using enough spray volume to obtain thorough coverage and penetration of the turf. Use 50 – 100 gallons of diluted material per acre, or 2 – 5 gallons of diluted material per 1,000 square feet.

For use to control mole crickets:

- Apply 1 quart – 3 gallons of **AZATIN O** per acre (0.75 – 9 fluid ounces per 1,000 square feet) using enough spray volume to obtain thorough coverage. Use 2 – 5 gallons of diluted material per 1,000 square feet, or 50 – 100 gallons of diluted material per acre.
- For best results, apply when nymphs are small, in the early spring. If necessary, reapply at 1 – 2 week intervals.

For use to control billbugs:

- Apply in mid to late spring or at first sign of pest emergence or damage.
- Apply 1 quart – 3 gallons of **AZATIN O** per acre (0.75 – 9 fluid ounces per 1000 square feet) using enough spray volume to obtain thorough coverage. Use

50-100 gallons of diluted material per acre, or 2 – 5 gallons of diluted material per 1,000 square feet.

- Reapply as necessary. Repeat treatment in early to mid fall to control possible second generation.

Nematodes:
Apply 1 quart – 3 gallons of **AZATIN O** per acre (0.75 – 9 fluid ounces per 1,000 square feet) using enough spray volume to obtain thorough coverage. Use 50-100 gallons of diluted material per acre. Use 2 – 5 gallons of diluted material per 1,000 square feet. Repeat as necessary.

DIRECTIONS FOR GREENHOUSE AND NURSERY-GROWN FOOD CROPS

Application Rates for Key Insect Pests of Vegetables Raised to Harvest (including Transplants for Commercial Resale), Fruits, and Nut Crops Grown in Greenhouses, Lath and Shade Houses, and Nurseries.
Apply **AZATIN O** at the indicated rates in sufficient water to ensure adequate plant coverage. Use 1 – 2 gallons of spray solution per 1,000 square feet, or equivalent to a minimum of 30 gallons of water per acre for conventional application equipment (3 gallons of water per acre for low/ultralow volume equipment).

Pests controlled by AZATIN O	Rate of AZATIN O per 100 gallons of water*	Remarks
Aphids	10 – 16 fl. oz.	Foliar application for suppression and adult feeding deterrence.
Armyworms	4 – 16 fl. oz.	Foliar application against larvae.

Application Rates for Key Insect Pests of Vegetables Raised to Harvest (including Transplants for Commercial Resale), Fruits, and Nut Crops Grown in Greenhouses, Lath and Shade Houses, and Nurseries. ***(continued)***

Pests controlled by AZATIN O	Rate of AZATIN O per 100 gallons of water*	Remarks
Borers, including: Peach Twig Borer, Peachtree Borer, and Squash Vine Borer	4 – 16 fl. oz.	Foliar application against young larvae before boring or tunneling in the plant.
Caterpillars, Loopers, and other Lepidoptera Larvae (worms)	4 – 16 fl. oz. (Except as noted at right)	Foliar application against larvae feeding externally on leaves, fruits, other external plant parts. **Corn Earworm, Diamondback Moth, Hickory Shuckworm, Imported Cabbageworm (larvae of Cabbage Butterfly), and Navel Orangeworm:** Use 10 – 16 fl. oz./100 gal. **Artichoke Plume Moth:** Apply at 16 fl. oz./100 gal.
Colorado Potato Beetle & other leaf-feeding beetles	4 – 16 fl. oz.	Foliar application against leaf-feeding larvae.

Application Rates for Key Insect Pests of Vegetables Raised to Harvest (including Transplants for Commercial Resale), Fruits, and Nut Crops Grown in Greenhouses, Lath and Shade Houses, and Nurseries. ***(continued)***

Pests controlled by AZATIN O	Rate of AZATIN O per 100 gallons of water*	Remarks
Cutworms	5 – 16 fl. oz.	Foliar application against larvae feeding on leaves or stems.
Leafhoppers	10 – 16 fl. oz.	Foliar application against nymphs.
Leafminers: *Liriomyza* spp. and citrus leafminer *(Phyllocnistis citrella)*	6 – 16 fl. oz.	Foliar application against larvae. Mix with approved oil-based adjuvant for best results.
Leafrollers	4 – 16 fl. oz.	Foliar application against larvae.
Scales	6 – 16 fl. oz.	Foliar or stem application targeting crawler stages.
Whiteflies	6 – 16 fl. oz.	Foliar application against nymphs. Spray should be directed to undersides of leaves.

*When using lower rates (less than 10 fl. oz.), combine **AZATIN O** with an approved adjuvant such as a non-phytotoxic crop oil, up to 1% for improved spray coverage and translaminar uptake. Always use sufficient spray volume to ensure good coverage

of all plant parts. Treat early and target youngest larvae or nymphs for best control. Repeat applications every 7-10 days or as needed to maintain control.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Do not store above 100 degrees F or below -20 degrees F for extended periods of time. Keep containers tightly closed when not in use.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING: Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Then offer for recycling, if available or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

WARRANTY

OHP, Inc. 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. To the extent consistent with applicable law, 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, side-roll, 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, 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.

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 recommended 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 recommended 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 recommended rate evenly to the entire treated area.

Azatin is a registered trademark of Certis USA.
The OMRI Listed seal (the Seal) is a registered trademark of OMRI (Organic Materials Review Institute).

Manufactured for:
OHP, Inc.
PO Box 51230
Mainland, PA 19451-0230
(800) 356-4647

ESL012814N REV042314

NOTES

NOTES

AZATIN® O

Biological Insecticide

FOR INDOOR AND OUTDOOR USE ON ORNAMENTALS, TURF (INCLUDING COMMERCIAL LAWNS), VEGETABLES, AND OTHER HORTICULTURAL CROPS

ACTIVE INGREDIENT:
Azadirachtin 4.5%
OTHER INGREDIENTS: 95.5%
TOTAL: 100.0%

This product contains 0.39 lb. (175 g) of azadirachtin per US gallon.

EPA Reg. No.: 70051-9-59807 **EPA Est. No.: 39578-TX-01**

If you have questions or comments regarding the use of this product, please call 1-800-356-4647.

KEEP OUT OF REACH OF CHILDREN

CAUTION

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

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Avoid contact with skin, eyes or clothing. Harmful if swallowed or inhaled. Avoid breathing vapors or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

See attached booklet for additional Precautionary Statements and Directions for Use.

Net Contents:
1 Quart (32 fl. oz.) (946 mL)

ohp Partners with solutions

PULL HERE TO OPEN
PRESS TO RESEAL

ESL012814N REV042314

FIRST AID

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

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 to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

Hot Line Number: 1-800-356-4647.

ENVIRONMENTAL HAZARDS

This product may be 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.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage and disposal. **PESTICIDE STORAGE:** Do not store above 100 degrees F or below -20 degrees F for extended periods of time. Keep containers tightly closed when not in use. **PESTICIDE DISPOSAL:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING: Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying.

For **Triple rinse**, see inside **AZATIN O** booklet.

See complete **Precautionary Statements**, and **Directions For Use** inside **AZATIN O** booklet.

See **Conditions of Sale and Warranty** inside **AZATIN O** booklet.

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