

AZATIN® XL



Biological Insecticide

SPECIMEN LABEL

FOR INDOOR AND OUTDOOR USE ON ORNAMENTALS AND HORTICULTURAL CROPS

ACTIVE INGREDIENT:

Azadirachtin* 3.0%

INERT INGREDIENTS 97.0%

Total 100.0%

*Contains 0.265 pounds (120 grams) of azadirachtin per gallon

EPA Reg. No. 70051-27-59807

EPA Est. 44616-MO-1

Net Contents: One Quart

KEEP OUT OF REACH OF CHILDREN

CAUTION

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if swallowed or inhaled. Avoid breathing vapors or spraymist. Causes eye irritation. Do not get in eyes. Avoid contact with skin or clothing. Wash thoroughly with soap and water after handling.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- long-sleeved shirt and long pants
- chemical resistant gloves such as barrier laminate or Viton (≥ 14 mil)
- shoes plus socks, and
- protective eye wear.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning / maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

STATEMENT OF PRACTICAL TREATMENT

If in Eyes: Flush eyes with plenty of water for 15 minutes. Call a physician if irritation persists.

If Inhaled: Move to fresh air. Clear lungs and airways. Get medical attention if irritation develops.

If on Skin: Wash with plenty of soap and water. Get medical attention if irritation develops.

If Swallowed: Do not induce vomiting. Contact a physician immediately.

User Safety Recommendations:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal area below the mean high-water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment wash water or rinsate.

DIRECTIONS FOR USE

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

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

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and 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.

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, chemical resistant gloves such as barrier laminate or Viton (≥ 14 mil), shoes plus socks, and protective eye wear.

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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.

Pests controlled by AZATIN® XL

Aphids, such as:

Apple Aphid
Cotton Aphid
Green Peach Aphid
Melon Aphid
Pea Aphid
Potato Aphid
Rose Aphid

Armyworms, such as:

Beet Armyworm
Fall Armyworm
Lawn Armyworm
Southern Armyworm
Yellow Striped Armyworm

Bagworms

Beetles, Grubs and Weevils, such as:

Black Vine Weevil
Colorado Potato Beetle
Elm Bark Beetle
Flea Beetles
Japanese Beetle
June Beetle
Mexican Bean Beetle
Rose Chater

Cankerworms, such as:

Fall Cankerworm
Spring Cankerworm

Caterpillars and Loopers, such as:

Cabbage Looper
Corn Earworm
Diamondback Moth
Grapeleaf Skeletonizer
Imported Cabbageworm
Navel Orangeworm
Soybean Looper
Tent Caterpillar
Tobacco Budworm
Tobacco Hornworm
Tomato Pinworm

Chafers, such as:

European Chafer
Northern Masked Chafer
Rose Chafer
Southern Masked Chafer

Cutworms, such as:

Black Cutworm
Citrus Cutworm

Flies, such as:

Caribbean Fruit Fly
Crane Fly
Fungus Gnat
Hessian Fly
Oriental Fruit Fly
Mediterranean Fruit Fly
Melon Fly
Shore Fly
Walunt Husk Fly

Leaf Tiers

Leafhoppers, such as:

Grape Leafhopper
Potato Leafhopper
Variegated Leafhopper

Leafminers, such as:

Citrus Leafminer
Serpentine Leafminer

Leafrollers, such as:

Blueberry Leafroller
Filbert Leafroller
Fruitree Leafroller
Grape Leafroller
Oblique Banded Leafroller
Omniverous Leafroller

Leaf Perforators

Marsh Crane Flies

Mealybugs

Moths, such as:

European Pine Shoot Moth
Pine Tip Moth
Tussock Moth

Psyllids

Sawflies

Thrips, such as:

Citrus Thrips
Flower Thrips
Gladiolus Thrips
Western Flower Thrips

Whiteflies, such as:

Greenhouse Whitefly
Silverleaf Whitefly
Sweetpotato Whitefly

CROPS ON WHICH AZATIN® XL CAN BE USED

Azatin® XL can be used indoors and outdoors. Plants may be potted, grown in the soil or soilless mixtures or grown hydroponically.

Bedding Plants, Flowers, Potted Plants and Foliage, such as:

Actinopteris
Aglaonema
Allamanda
Algerian Ivy
Alocasia
Anthurium
Aphelandra
Artemisia
Aster
Aucuba Ilex
Azalea
Baby's Breath
Begonia
Bougainvillea
Boston Fern
Boxwood
Brachycome
Cacti
Calabrese
Caladium
Calla
Calathea
Calendula
Carnation
Chrysanthemum
Coleus
Columbine
Dahlia
Daisy
Daylily
Delphinium
Dianthus
Dieffenbachia
Dusty Miller
Easter Lily
English Ivy
Euphorbia
Fern
Ficus
Foxglove
Freesia
Fuchsia
Gaillardia
Gardenia
Geranium
Gerbera
Gladioli
Gypsophilla
Hedera
Hibiscus
Impatiens
Iris
Lily
Manvillea
Marigold
Nasturtium
Pansy
Pelargonium
Peony
Peperomia
Petunia
Philodendron
Phlox
Photinia
Pittosporum
Pinks
Poinsettia
Pothos
Portulaca
Rosemary
Rose
Rubberplant
Salvia
Schefflera
Sedum
Sempervivum
Snapdragon
Spathiphyllum
Stock
Syngonium

Verbena
Vinca
Wandering Jew
Zinnia

Ornamentals, such as:

Ageratum
Arborvitae
Aster
Aucuba Ilex
Azalea
Begonia
Boxwood
Cacti
Calendula
Calla
Camella
Camellia
Carnation
Ceanothus
Chrysanthemum
Cineraria
Coleus
Cotoneaster
Cyclmen
Daffodil
Dahlia
Delphinium
Dogwood
Ficus
Foliage Plants
Fuchsia
Gardenia
Geranium
Hyacinth
Hydrangea
Iris
Ivy
Lily
Maidenhair Fern
Marigold

Narcissus
Orchid
Pansy
Pelargonium
Peony
Phlox
Photinia
Pittosporum
Poinsettia
Pyracantha
Rhododendron
Rose
Rubber Plant
Snapdragon
Stock
Tulip
Wandering Jew
White Cedar
White Pine
Yew
Yucca
Zinnia

Trees and Shrubs, such as:

Andromeda
Arborvitae
Ash
Austrian Pine
Azalea
Beech
Birch
Birdsnest Spruce
Blue Spruce
Boxwood
Butternut
Cedar
Chamaecyparis
Cherry
Crabapple
Cotoneaster
Cyprus
Dogwood
Douglas Fir
Elm
Euonymus
Firethorn
Forsythia
Hackberry
Hawthorn
Hemlock
Hickory
Holly
Honey Locust
Horse Chestnut
Juniper
Larch

Laurel
Lilac
Linden
London Plane
Magnolia
Manvilla
Maple
Mimosa
Mountain Ash
Myrtle
Oak
Pachysandra
Peach
Pine
Planetree
Poplar
Privet
Quince
Spruce
Sycamore

Bulb Vegetables, such as:

Garlic
Leek
Onion
Shallot

Citrus Fruits, such as:

Calamandin
Citrus citron
Grapefruit
Kumquat
Lemon
Limes
Mandarin (tangerine)
Orange, sour
Orange, sweet
Pummelo
Satsuma mandarin

Cucurbit Vegetables, such as:

Chinese waxgourd
Citron melon
Cucumber
Gherkin
Gourds
Pumpkin
Squash

Fruiting Vegetables, such as:

Eggplant

Ground cherry
Pepinos
Peppers
Tomatillo
Tomato

Herb and Spices such as:

Anise
Balm
Basil
Borage
Burnet
Chamomile
Caraway
Catnip
Celery
Chives
Coriander
Costmary
Cumin
Curry leaf
Dandelion
Dill
Fennel
Fenugreek
Horehound
Hyssop
Marigold
Marjoram
Mint
Nasturtium
Pennyroyal
Rosemary
Rue
Sage
Savory
Sweet bay
Tansy
Tarragon
Thyme
Wintergreen
Woodruff
Wormwood

Brassica (Cole) Crops, such as:

Broccoli
Brussels sprouts
Bok choy
Cabbage
Chinese cabbage
Cauliflower

Leafy Vegetables, such as:

Chinese spinach
Celery

Chervil
Collards
Corn salad
Chrysanthemum (edible)
Cress
Endive
Fennel
Kale
Kohlrabi
Mustard greens
Orach
Parsley
Rhubarb
Spinach
Swiss chard
Turnip tops

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, it is recommended that a small area be sprayed first to make certain that no phytotoxicity occurs.

RE-ENTRY / PRE-HARVEST INTERVAL

There are no restrictions on applying this product up to the time of harvest. Individual state regulations may vary and should be consulted for allowable pre-harvest 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 stages and pupae. It also reduces crop damage by repelling and deterring feeding of all stages of insects.

**APPLICATION DIRECTIONS
READ ALL DIRECTIONS BEFORE USING.**

Dilute this product in water at a rate up to 21 fluid ounces (20 grams active ingredient) per acre. Apply using any suitable ground or aerial equipment, in a manner to obtain uniform and complete plant coverage.

Avoid overspraying to the point of excessive runoff.

Applications should be made when pests first appear and are in their early larval stages. Repeat applications every 7 days or as needed.

For best results, a spreader-sticker should be added at the recommended label rate.

Dilute solutions containing **Azatin® XL** should be maintained at a pH between 3 and 7, and applied soon after preparation. Do not store for later use.

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.

Application Rates for Whitefly and Other Greenhouse (including Lathe and Shade), Nursery and Interiorscape Pests		
Pests controlled by Azatin® XL	Rate per 100 gallons	Remarks
Aphids	12 to 16 oz.	Suppression and adult feeding deterrence.
Armyworms	10 to 16 oz.	Foliar application to larvae.
Black Vine Weevil	21 oz.*	Soil and foliar application to larvae.
Fungus Gnats	8 oz.	Apply as soil drench for maggot control.
Leafminers	10 to 16 oz.	Foliar application to larvae.
Western Flower Thrips	12 to 16 oz.	Suppression of larvae and adult feeding deterrence.
Sweetpotato Whitefly (including strain B)	10 to 16 oz.	Foliar application to larvae and nymphs.
Greenhouse Whitefly	10 to 16 oz.	Foliar application to larvae and nymphs.
Others		
Bagworms	10 to 16 oz.	Foliar application to nymphs / larvae.
Cankerworms		
Cutworms		
Leafhoppers		
Leafrollers		
Sawflies		
Tent Caterpillars		

*Rate per acre.

Application Rates for Key Insect Pests in Vegetables and Fruits		
Pests controlled by Azatin® XL	Rate per Acre*	Remarks
Aphids, such as: Cotton Aphid Green Peach Aphid Hop Aphid Potato Aphid	10 to 16 oz.	Foliar application, for suppression only
Armyworms, such as: Beet Armyworm Fall Armyworm Southern Armyworm Yellow Striped Armyworm	5 to 16 oz.	Foliar application to larvae
Beetles, such as: Colorado Potato Beetle	5 to 16 oz.	Foliar application to larvae
Caterpillars, such as: Corn Earworm Diamondback Moth Imported Cabbageworm Navel Orangeworm Tobacco Budworm Tobacco Hornworm Tomato Fruitworm Western Grapeleaf Skeletonizer	10 to 21 oz. 10 to 16 oz. 5 to 16 oz. 10 to 21 oz. 5 to 16 oz. 5 to 16 oz. 5 to 16 oz. 5 to 16 oz.	Foliar application to larvae
Cutworms, such as: Citrus Cutworm Black Cutworm	5 to 16 oz. 5 to 10 oz.	Foliar application to larvae
Loopers, such as: Cabbage Looper Soybean Looper	5 to 10 oz.	Foliar application to larvae
Leafminers, such as: Citrus Leafminer Serpentine Leafminer	10 to 16 oz.	Foliar application to larvae. Use with oil.
Leafhoppers, such as: Grape Leafhopper Variegated Leafhopper	10 to 16 oz.	Foliar application to nymphs. Use equipment to target the undersides of leaves.
Whiteflies, such as: Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	10 to 21 oz.	Foliar application to nymphs. Use equipment to target undersides of leaves.

*When using lower rates, combine AZATIN® XL with an approved adjuvant such as a non-phytotoxic crop oil, up to 1%. Always ensure good coverage by adjusting spray gallonage. Treat early for best control. Do NOT use less than 10 oz. in California.

SPRAY:

High volume - When plant foliage is dense, use the higher label rates and increase spray gallonage to obtain uniform and complete coverage.

Low / ultra low volume - Apply **Azatin® XL** at rates of 5 to 21 oz. / acre (10-21 oz. in California) in a carrier appropriate for the application equipment. For best results, ensure uniform and complete plant coverage.

Aerial Application - **Azatin® XL** may be aerially applied at rates of 5 to 21 oz. / acre (10-21 oz. in California) using suitable equipment such as fixed wing aircraft or helicopters. Select appropriate carrier and equipment to provide uniform and complete coverage.

DRENCH / CHEMIGATION:

This product is effective as a soil drench for controlling soil-borne insect larvae (e.g. Fungus Gnats).

It is also effective as a soil drench for controlling foliar and soil-borne pests, particularly when alternated with **Azatin® XL** foliar sprays.

Apply **Azatin® XL** in sufficient water and for sufficient duration so as to distribute the recommended 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 supplemental labeling entitled "Olympic's Chemigation Bulletin" for use directions for chemigation. Do not apply this product through any irrigation system unless the supplemental labeling on chemigation is followed.

MIXING DIRECTIONS

Azatin® XL WITH WATER:

For best results,

1. Use clean equipment.
2. Fill tank 1/2 full to 3/4 full with water and begin agitation.
3. Add pesticide to the tank.
4. Fill the tank completely with water and mix thoroughly before applying.
5. Adjust spray solution to between 3 to 7 pH, if necessary.
6. Pesticide mix should be applied 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

A compatibility test should be performed before tank mixing this product with other product(s) or liquid fertilizer(s). Fill three separate 1 quart jars with 1 pint of water of 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 remixed, the mixture can be sprayed as long as good agitation is used. If the mixtures are incompatible, do not use the mixture.

STORAGE AND DISPOSAL

GENERAL: Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Do not reuse container.

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: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Do not re-use as a container. Triple rinse or equivalent. Then offer for recycling or reconditioning, or puncture and dispose of in an incinerator or landfill or by other procedures approved by State and local authorities.

LIMITATION OF WARRANTY AND CONDITIONS OF SALE

Read this limited Warranty and Liability before buying or using this product.

Olympic Horticultural Products Company warrants that this product conforms to the chemical description on the label and if used in accordance with directions for use, is fit for the purpose referred to. It is impossible, however, 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 weather conditions, presence of other materials or the manner of use or application, all of which are beyond the control of Olympic Horticultural Products Company. All such risks are expressly assumed by the buyer.

Olympic Horticultural Products Company makes no other warranties of merchantability or fitness for a particular purpose nor any other express or implied warranty except as stated above. Under no circumstances shall the manufacturer be held liable for consequential or indirect damages resulting from the use of handling of this product. Damages caused by this product shall be limited to the purchase price.



Manufactured for:
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