AZATIN-EC™

BIOLOGICAL INSECTICIDE

FOR INDOOR AND OUTDOOR USE ON ORNAMENTALS, TURF, AGRONOMIC AND HORTICULTURAL CROPS

ACTIVE INGREDIENT:

Azadirachtin *	**3.0%**
INERT INGREDIENTS	**97.0%**
	100.0%

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

KEEP OUT OF REACH OF CHILDREN

WARNING

AVISO - PRECAUCION AL USUARIO:

SI USTED NO LEE INGLES, NO USE ESTE PRODUCTO HASTA QUE LA ETIQUETA LE HAYA SIDO EXPLICADA AMPLIAMENTE.

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.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Harmful if swallowed or inhaled. Avoid breathing vapors or spray mist. Causes eye irritation. Do not get in eyes. Wash hands thoroughly after handling. Allow spray to dry before reentering treated areas.

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.

If you have questions or comments regarding the use of this product, please call (801)583-3500.

ACCEPTED
JUN 03 1993
[redacted]
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 62552-1

Net Contents:
AgriDyne Technologies Incorporated
417 Wakara Way
Salt Lake City, UT 84108

E.P.A. Registration No. 62552-1
E.P.A. Est. No.
ATI 5-17-93

Directions for Use

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

Pests controlled by AZATIN-EC

Ants
Argentine Ant

Aphids
Alfalfa Aphid
Apple Aphid
Bean Aphid
Cabbage Aphid
Cooly Spruce Gall Aphid
Corn Root Aphid
Cotton Aphid
Cow pea Aphid
Eastern Spruce Gall Aphid
Grapevine Aphid
Green Peach Aphid
Hickory Leafstem Gall Aphid
Melon Aphid
Pea Aphid
Pine Bark Aphid
Potato Aphid
Red Aphid
Rose Aphid
Russian Wheat Aphid
Spruce Gall Aphid
Strawberry Aphid
Tobacco Aphid
White Root Aphid
Woolly Apple Aphid
Woolly Hemlock Aphid
Yellow Pecan Aphid

Armyworms
Beet Armyworm
Fall Armyworm
Lawn Armyworm
Southern Armyworm
Yellow Striped Armyworm

Bagworms

Beetles, Grubs and Weevils
Alfalfa Weevil
Banded Cucumber Weevil
Bean Leaf Weevil
Bean Weevil
Billbugs
Black Vine Weevil
Blister Beetle
Bluegrass Weevil
Cigarette Beetle
Colorado Potato Beetle
Cowpea Weevil
Douglas Fir Beetle
Dusky Sap Beetle
Elm Bark Beetle
Flea Beetles
Grape Phylloxera
Green June Beetle
Ips Bark Beetle
Japanese Beetle
Japanese Weevil
June Beetle
May Beetle
Mexican Bean Beetle
Mexican Bean Weevil
Mountain Pine Beetle
Pales Weevil
Pine Bark Beetle
Pine Root Collar Weevil
Southern Pine Beetle
Pecan Weevil
Plum Curculio
Rose Chafer
Spotted Cucumber Beetle
Southern Corn Rootworm
Sweet Potato Beetle
Two-banded Japanese Weevil
Western Corn Rootworm
White-Fringed Beetle
White Pine Weevil
Wireworms

Borers
Azalea Stem Borer
Bronze Birch Borer
Dogwood Twig Borer
Dogwood Borer
Iris Borer
Lilac Borer
Oak Borer
European Corn Borer
Southwestern Corn Borer
Peachtree Borer
Peachtwig Borer
Rhododendron Borer

Budworms
Spruce Budworm
Western Spruce Budworm

Bugs
Alfalfa Plant Bug
Boxelder Bug
Chinch Bug
Green Bug
Lygus Bug
Southern Brown Stink Bug
Southern Green Stink Bug
Squash Bug
Tarnished Plant Bug

Cankerworms
Fall Cankerworm
Spring Cankerworm

Caterpillars and Loopers
Alfalfa Caterpiller
Blackheaded Budworm
Cabbage Butterfly
Cabbage Looper
Corn Ear Worm
Cranberry Fruitworm
Dagger-moth
Diamondback Moth
Green Clover Worm
Hornworm
Hickory Shuck Worm
Imported Cabbage Worm
Melon Rind Worm
Navel Orange Worm
Orange Tortrix
Pecan Nut Casebearer
Pink Bollworm
Range Caterpillar
Red Humped Caterpillar
Soybean looper
Salt Marsh Caterpillar
Tent Caterpillars
Tobacco Budworms
Tomato Fruitworm
Tomato Pinworm
Velvetbean Caterpillar
Grape Leaf Skeletonizer

Centipedes

Chafers
European Chafer
Northern Masked Chafer
Rose Chafer
Southern Masked Chafer

Crickets
Mole Cricket
Mormon Cricket

Cutworms
Black Cutworm
Citrus Cutworm
Climbing Cutworm
Western Bean Cutworm
Variegated Cutworm

Flies
Caribbean Fruit Fly
Crane Fly
Fungus Gnat
Hessian Fly
Mushroom Fly
Oriental Fruit Fly
Mediterranean Fruit Fly
Melon Fly
Shore Fly
Walnut Husk Fly

Grasshoppers and Locusts
Greenhouse Leaf Tiers

Leafhoppers
Potato Leafhopper
Varigated Leafhopper

Leafminers
Azalea Leafminer
Boxwood Leafminer
Elm Leafminer
Holly Leafminer

Leafhoppers
Leafrollers
Leafperforators
Loopers
Marsh Crane Flies
Mealybugs

Midges
Chrysanthemum Gall Midge
Rose Midge

Millipedes

Mites
Banks Mite
Clover Mite
Citrus Rust Mite
Citrus Red Mite
European Red Mite
Hemlock Rust Mite
Honeylocust Mite
Pacific Mite
Spruce Mite
Two-Spotted Spidermite

Moths
Amorbia
Almond Moth
Artichoke Plume Moth
Codling Moth
Cranberry Girdler Moth
European Pine Shoot Moth
Grape Berry Moth
Gypsy Moth
Head Moth
Oriental Fruit Moth
Pine Tip Moth
Sunflower Bud Moth
Sunflower Moth
Tiger Moth
Tobacco Hornworm Moth
Tufted Apple Bud Moth
Tussock Moth

Psyllids
Sawflies

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

Sowbugs
(Pillbugs)

Thrips
Citrus Thrips
Flower Thrips
Gladiolus Thrips
Onion Thrips
Pear Thrips
Thrips palmi
Tobacco Thrips
Western Flower Thrips

Webworms
Fall Webworms
Sod Webworms

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

CROPS ON WHICH AZATIN-EC CAN BE USED

AZATIN-EC can be used indoors and outdoors. Plants may be potted, grown in the soil or soiless mixtures or grown hydroponically.

BEDDING PLANTS, FLOWERS, POTTED PLANTS AND FOLIAGE:

Actinopteris
African Violet
Aglaonema
Allamanda
Algerian Ivy
Alocasia
Anthurium
Aphelandra
Artemisia
Aster
Aucuba Ilex
Azalea
Baby's Breath
Begonia
Boouganvillea
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
Freezia
Fuchsia
Gaillardia
Gardenia
Geranium
Gerbera
Gladioli
Gloxinia
Gypsophilla
Hedera
Hibiscus
Impatiens
Iris
Lily
Manvilla
Marigold
Nasturtium
Pansy
Pelargonium
Peony
Peperomia
Petunia
Philodendron
Phlox
Photinia
Pittosporum
Pinks
Poinsettia
Pothos
Portulaca
Primrose
Rosemary
Rose
Rubberplant
Salvia
Schefflera
Sedum
Sempervivum
Snapdragon
Spathiphyllum
Stock
Syngonium
Verbena
Vinca
Wandering Jew
Zinnia

ORNAMENTALS
African Violet
Ageratum
Arvborvitae
Aster
Aucuba Illex
Azalea
Begonia
Boxwood
Cacti
Calendula
Calla
Cam ella
Camellia
Carnation
Ceanothus
Chrysanthemum
Cineraria
Coleus
Cotoneaster
Cyclmen
Daffodil
Dahlia
Delphinium
Dogwood
Ficus
Foliage Plants
Fuchsia
Gardenia
Geranium
Gloxinia
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
Andromeda
Arborvitae
Ash
Austrian Pine
Azalea
Beech
Birch
Birdsnest Spruce
Blue Spruce
Boxwood
Butternut
Cedar
Chamaecyparis
Cherry
Crabapple
Cotoneaster
Cyprus
Dogwood
Douglas Fir
Elm
Eucalyptus
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

OTHER ORNAMENTALS, TREES AND SHRUBS

TURFGRASS
Bentgrass
Bermuda Grass
Bluegrass
  Annual Bluegrass
Centipede Grass
Fescue
Ryegrass
  Annual Ryegrass
  Perennial Ryegrass
St. Augustine
Wheatgrass
Zoysia Grass

BULB VEGETABLES
garlic
leek
onion
shallot

CEREAL GRAINS
barley
buckwheat
corn, field
corn, sweet
corn, pop
millet
oats
rice
rye
sorghum
triticale
wheat

CITRUS FRUITS
calamandin
citrus citron
grapefruit
kumquat
lemon
limes
mandarin (tangerine)
orange, sour
orange, sweet
pummelo
satsuma mandarin

CURCURBIT VEGETABLES
Balsam pear (bitter melon)
Chinese waxgourd
citron melon
cucumber
gherkin
gourds
cantaloupe
casaba
crenshaw
honeydew
honeyballs
mango melon
pumpkin
squash
watermelon

FIBER CROPS
cotton
flax
kenaf

FORAGE AND FODDER CROPS
alfalfa
annual ryegrass
bermuda grass
bluegrass
clover
fescue
hay (mixed)
kudzu
lespedeza
lupine
orchard grass
pasture (mixed)
perennial ryegrass
redtop
sainfoin
timothy
trefoil
vetches
wheatgrasses

FRUITING VEGETABLES
eggplant
ground cherry
pepinos

peppers
tomatillo
tomato

HERBS AND SPICES
anise
balm
basil
borage
burnnet
camomile
caraway
catnip
chives
celery
coriander
costmary
cumin
curry leaf
dandelion
dill
fennel
fenugreek
horehound
hyssop
mint
marigold
marjoram
nasturtium
pennyroyal
rosemary
rue
sage
savory
sweet bay
tansy
tarragon
thyme
wintergreen
woodruff
wormwood

BRASSICA (Cole) CROPS
broccoli
Brussels sprouts
bok choy
cabbage
Chinese cabbage
cauliflower
Chineese spinach
celery
chervil
collards
corn salad
chrysanthemum (edible)
cress
endive
fennel
kale
kohlrabi
lettuce
mustard greens
orach
parsley
rhubarb
spinach
Swiss chard
turnip tops

LEGUMINOUS CROPS
beans (Phaseolus, Lupinus, Vicia, Vigna spp)
chick peas (garbanzos)
lentil
peas (Pisum spp)
soybeans

NUTS
almond
beach nut
Brazil nut
butternut
cashew
chestnut
chinquapin
filberts (hazelnuts)
hickory nuts
lychee nuts
macadamia
pecan
pistachio
walnuts

OILSEED CROPS
canola
castors
crambe
guar
jojoba
peanuts
rape
safflower
sesame
soybean
sunflower

POME FRUITS
apple
crabapple
loquat
mayhaws
pear
quince
jujube

ROOT AND TUBER CROPS
artichokes
beet, red
beet, sugar
carrot
cassava
celeriac
chervil
dasheen (taro)
ginger
horseradish
jicama
parsnips
potato
radish
radish, Japanese (Daikon)
rutabaga
salisfy
sweet potato
tumeric
turnip
yam
yam bean

STONE FRUITS
apricot
cherry, sour
cherry, sweet
nectarine
peach
plum
prune

SMALL FRUITS AND BERRIES
blackberry
blueberry
boysenberry
cranberry
current
dewberry
elderberry
gooseberry
grape
huckleberry
loganberry
olives
olallie berry
raspberry
strawberry
youngberry

TROPICAL FRUITS
breadfruit
banana
cherimoya
durian
guava
longan
malanga
mango
mangosteen
papaya
passion fruit
plantain
starfruit

MISCELLANEOUS CROPS
asparagus
avocados
birdseed
coffee
cacao
edible flowers
feijoa
figs
hops
guayule
kiwi
mushrooms
okra
palm
papayat
pawpaw
persimmons
pineapple
sugar cane
tamarillo
tea
tobacco
waterchestnut
watercress

NON-CROP AREAS
RANGELAND
BARRIER STRIPS
RIGHTS OF WAY
WASTELANDS

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 /PREHARVEST INTERVAL

This product can be applied up to and on the day of harvest. Workers may re-enter the treated area without protective clothing as soon as the spray has dried.

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.

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-EC 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 Azatin-EC label rates.

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

Low volume- Apply Azatin-EC in a carrier appropriate for the application equipment. For best results, ensure uniform and complete plant coverage.

Aerial Application- Azatin-EC may be aerially applied 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-EC foliar sprays.

Apply Azatin-EC 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 "AgriDyne'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.

TURFGRASS:
Azatin-EC should always be applied as a spray in sufficient water to assure thorough coverage of the foliage or soil, depending on the type of application.

Equipment - Use suitable ground or aerial equipment that allows for uniform coverage of the targeted treatment area, such as hand or power-operated spray equipment, or hose-end applicators.

Application - For surface feeders - For control of armyworms, sod webworms, (Crambus spp) cutworms, and leafhoppers in turfgrass, apply Azatin-EC at a rate up to 21 fluid ounces (0.5 fl. oz./1,000 sq. ft.) per acre. Use the higher label rates for moderate to heavy insect infestations.

Subsurface feeders - For control of white grubs, chinch bugs, and billbugs in turfgrass: Apply at a rate up to 21 fl. oz./acre (0.5 fl. oz./1,000 sq. ft.) per application. Sprinkle irrigate with 1 to 2 inches of water following treatment. Repeat application as needed.

Irrigate well before applying Repeat application as needed. Use up to 5 gallons of water per 1,000 square feet (43 to 218 gallons/A) to obtain good coverage. For all applications use sufficient water rate to obtain thorough uniform coverage.

MIXING DIRECTIONS

AZATIN-EC 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 and 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. For additional mixing information or assistance call AGRIDYNE's Customer Service at 1(800)657-3090.

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.

AgriDyne Technologies, Inc. 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 AgriDyne Technologies Inc. All such risks are expressly assumed by the buyer.

AgriDyne Technologies, Inc. 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.

Lot No.