For Control of Leafminers and Mites and Suppression of Aphids, Whiteflies and Thrips on Ornamental Plants

ACTIVE INGREDIENT: % BY WT.
Abamectin (CASRN: 65195-55-3 and 65195-56-4) ................................................................. 1.9%

OTHER INGREDIENTS: .............................................................................................................. 98.1%

TOTAL: .................................................................................................................................. 100.0%

*0.15 lb Abamectin per gallon

KEEP OUT OF REACH OF CHILDREN

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

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 SWALLOWED
• Call a poison control center or doctor immediately for treatment advice.
• Have affected person sip a glass of water if able to swallow.
• Do not induce vomiting unless told by a poison control center or doctor.
• Do not give anything by mouth to an unconscious person.

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, and then give artificial respiration, preferably mouth to mouth if possible.
• Call a poison control center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. For medical emergency, call the Rocky Mountain Poison Control Center at 1-866-673-6671.

FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident, call CHEMTREC 1-800-424-9300.
NOTES TO PHYSICIAN:
Early signs of intoxication include dilation of pupils, muscular incoordination, and muscle tremors. Toxicity following accidental ingestion of the concentrate can be minimized by early administration of chemical adsorbents (e.g., activated charcoal).
If toxicity from exposure has progressed to cause severe vomiting, the extent of resultant fluid and electrolyte imbalance should be gauged. Appropriate supportive parenteral fluid replacement therapy should be given, along with other required supportive measures (such as maintenance of blood pressure levels and proper respiratory functionality) as indicated by clinical signs, symptoms and measurements.
In severe cases, observations should continue for at least several days until clinical condition is stable and normal. Since abamectin is believed to enhance GABA activity in animals, it is probably wise to avoid drugs that enhance GABA activity (barbiturates, benzodiazepines, valproic acid) in patients with potentially toxic abamectin exposure.

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
WARNING
Causes substantial but temporary eye injury. Do not get in eyes. Harmful if absorbed through skin or if swallowed. Avoid contact with skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE):
Some materials that are chemical-resistant to this product are listed below. If you want more options follow the instructions for Category E on an EPA chemical resistance category selection chart.
Applicators and all other handlers must wear:
• Long-sleeved shirt and long pants;
• Socks and shoes;
• Chemical resistant gloves (such as barrier laminate, nitrile rubber, neoprene rubber, viton);
• Protective eye wear.

USER SAFETY REQUIREMENTS
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/maintain PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS
Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
Users should remove clothes immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

ENVIRONMENTAL HAZARDS
This pesticide is toxic to fish and wildlife. 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.
This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

PHYSICAL OR CHEMICAL HAZARDS
Combustible: Do not use or store near heat or open flame.

DIRECTIONS FOR USE
Precautions and Restrictions
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, or pets, either directly or through drift. Only protected handlers may be in the area during applications. For any requirements specific to your State or Tribe, consult the Agency responsible for pesticide regulation.
Phoenix Merlin is an emulsifiable concentrate which is to be diluted with water prior to use. Phoenix Merlin controls leafminers and mites and suppresses whiteflies, thrips, and aphids on the ornamental species listed on this label.

Resistance Management
Phoenix Merlin is an insecticide/miticide and some target pests may develop resistance to Phoenix Merlin treatments. Use resistance management practices when using Phoenix Merlin on plants that are hosts of labeled pests that have more than one generation per crop or year. Typical strategies include but are not limited to, rotation to other insecticides with different modes of action, treatment of successive generations with different products, applications made at specified label rates and at specified spray intervals and the use of non-chemical alternatives (for example, beneficial arthropods or rotation of susceptible to non-susceptible plants). Contact your State Cooperative Extension Service for additional information on these or other resistance management strategies.

To manage susceptibility in Liriomyza leaf miner species, make up to three applications of Phoenix Merlin and then rotate to Citation Insecticide (which contains the active ingredient cyromazine) for no more than three applications before rotating back to Phoenix Merlin or using another insecticide. Alternating between these two products which have different modes of action should be based on the generation of Liriomyza species to avoid applying Phoenix Merlin to successive generations.

Plant Tolerance
Although Phoenix Merlin has been tested for tolerance on a variety of ornamental plants, it is not possible to test Phoenix Merlin under all conditions, such as when Phoenix Merlin is applied with combination product or with surfactants or adjuvants. Test a small area of plants for phytotoxicity to Phoenix Merlin before making applications to large blocks of plants. Phytotoxicity has been observed after the use of Phoenix Merlin on certain species of ferns (e.g., Adiantum spp.) and Shasta Daisy (L. eucanthemum spp.). United Phosphorus, Inc. does not recommend the use of Phoenix Merlin on ferns or Shasta Daisy.

Restrictions
- Do not use Phoenix Merlin for suppression of aphids, whiteflies, and thrips on roses, chrysanthemums, and gerbera. These ornamentals are primary hosts of mites and Liriomyza leafminers and Phoenix Merlin applications should target these insect pests. Additional applications of Phoenix Merlin to suppress aphids, thrips, and whiteflies on these plants will increase the selection pressure on mites and Liriomyza leafminers which may result in greater tolerance of these pests to Phoenix Merlin.
- Do not apply this product through any type of irrigation system.
- Do not apply by air.
- Do not use in citrus nurseries.
- Do not apply less than 8.0 fl. oz. or more than 16 fl. oz. per acre.
ORNAMENTALS – CROP USE DIRECTIONS

Target Crops
Shadehouse, Greenhouse, Field-Grown Ornamentals, Foliage Plants, Christmas Trees and Other Woody Ornamentals.

Application Directions
Mix Phoenix Merlin with a sufficient amount of water. Make applications as a foliar spray and ensure crops receive a thorough, uniform coverage.

Horticultural Spray Oils: For enhanced residual control of target pests on field-grown woody ornamentals, landscape plants, and Christmas trees, add a horticultural spray oil to the Phoenix Merlin spray mix at 0.5 to 1.0% of the spray volume. To maintain control, make repeat applications as necessary at 7 day intervals. Some plants may be sensitive to these oils. Test a small area of plants for phytotoxicity to Phoenix Merlin mixed with horticultural spray oil. Evaluate the plants after 2 weeks before applying Phoenix Merlin mixed with oils on a large number of plants. In addition, plant damage from treatment with such mixtures may be increased if the temperatures are very cold or very warm. Read and follow directions on the spray oil label. Do not exceed the maximum rates listed on the label.

<table>
<thead>
<tr>
<th>Pests</th>
<th>Phoenix Merlin fl. oz./100 gals</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mites⁴</td>
<td>4</td>
<td>Apply when mites first appear. Make repeat applications as necessary to maintain control. For Tarsenemid mites, repeat applications to newly developing tissue may be necessary to maintain control.</td>
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<tr>
<td>European Red Mite</td>
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<tr>
<td>Two-spotted Spider Mite</td>
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<tr>
<td>Carmine Spider Mite</td>
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<tr>
<td>Southern Red Mite</td>
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<tr>
<td>Spruce Spider Mite</td>
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<tr>
<td>Tarsenemid Mites¹</td>
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<tr>
<td>Cyclamen and Broad Mites</td>
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<tr>
<td>Eriophyid Mites¹</td>
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<td></td>
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<tr>
<td>Rust and Bud Mites</td>
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<tr>
<td>Liriomyza Leafminers²</td>
<td>8</td>
<td>Make repeat applications at 7-day intervals or as necessary to maintain control.</td>
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<tr>
<td>Boxwood Leafminer²</td>
<td>8</td>
<td>For control of mining larvae, make the application when adults are beginning to lay eggs in the new foliage.</td>
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<tr>
<td>Aphids, Thrips, and Whiteflies¹</td>
<td>8</td>
<td>Make applications every 7 days for 2 to 3 weeks. Then alternate to another insecticide that has a different mode of action than Phoenix Merlin. Read the Resistance Management section for additional information on insecticide rotation. For suppression of pest populations, young immatures must be contacted by the spray. Aphids, Thrips and Whiteflies are killed by direct contact with Phoenix Merlin spray. Make applications when young and immature stages of these pests are first observed.</td>
</tr>
</tbody>
</table>

Information for Application: Do not apply less than 8 fl. oz. or more than 16 fl. oz. per acre. Use sufficient water to obtain uniform plant coverage. Refer to the Resistance Management section and the Restrictions section for additional information.

¹Apply in 200-400 gals. of water per acre. In volumes of water below 200 gals., use a minimum of 8 fl. oz. per acre. If more than 400 gals. of water per acre are required for good plant coverage, apply a maximum rate of 16 fl. oz. per acre. For example, if 650 gals. of water are required, use 2.5 fl. oz. per 100 gals.

²Apply in 100-200 gals. of water per acre. In volumes of water below 100 gals., use a minimum of 8 fl. oz. per acre. If more than 200 gals. of water per acre are required for good plant coverage, apply the maximum rate of 16 fl. oz. per acre. For example, if 400 gals. of water are required, use 4 fl. oz. per 100 gals.
STORAGE AND DISPOSAL

DO NOT contaminate water, food or feed by storage or disposal.

**Pesticide Storage:** Store in a tightly closed container in a cool, dry place.

**Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**Container Handling:** Nonrefillable container. Do not reuse or refill this container. Triple rinse (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. 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.

IMPORTANT INFORMATION

READ BEFORE USING PRODUCT

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 reflect the opinion of experts based on field use and tests, and must be followed carefully. It is impossible to eliminate all risks 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 United Phosphorus, Inc. or Seller. Handling, storage, and use of the product by Buyer or User are beyond the control of United Phosphorus, Inc. and Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold United Phosphorus, Inc. and Seller harmless for any claims relating to such factors.

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