



## ORNAMENTAL MITICIDE/INSECTICIDE

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

### ACTIVE INGREDIENT

Abamectin (CASRN: 65195-55-3 and 65195-56-4) ..... 2.0%\*

OTHER INGREDIENTS ..... 98.0%

**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 the label, find someone to explain it to you in detail.)

See additional Precautionary Statements and Directions For Use inside booklet.

**EPA Reg. No. 83100-5-83979 / EPA Est. No. 069821-CHN-005**

**NET CONTENTS: ONE QUART**

Manufactured for: **ROTAM NORTH AMERICA, INC.**  
1400 NW 107th Avenue, Suite 310  
Miami, FL 33172  
1-866-927-6826

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## **PRECAUTIONARY STATEMENTS**

### **HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**WARNING.** Causes substantial but temporary eye injury. Harmful if swallowed. *Harmful if inhaled.* Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wear protective eyewear (goggles or faceshield). Do not get in eyes, on skin, or on clothing. *Do not breathe spray mist.* Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

This product contains a chemical (N-methyl pyrrolidone) known to the state of California to cause birth defects or other reproductive harm.

## FIRST AID (Avermectin B<sub>1</sub>)

<b>IF IN EYES</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for further treatment advice.</li></ul>
<b>IF SWALLOWED</b>	<ul style="list-style-type: none"><li>• Call poison control center or doctor for treatment advice.</li><li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
<b>IF INHALED</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li><li>• Call poison control center or doctor for treatment advice.</li></ul>
<b>IF ON SKIN OR CLOTHING</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for further treatment advice.</li></ul>

### Note to Physician

**Recommendations for Medical Treatment for LUCID (Avermectin B<sub>1</sub>) Acute Toxicity:** Early signs of intoxication include mydriasis (dilated pupils), ataxia (unsteadiness) and muscle tremors. Toxicity following accidental ingestion of the concentrate can be minimized by inducing vomiting within one-half hour of exposure.

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) 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 avermectin 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 avermectin exposure.

### (Avermectin B<sub>1</sub>)

Have the product container or label with you when calling a poison control center or doctor or going for treatment. **For Medical Emergency treatment call your Local Poison Control Center for assistance.**

## 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 B on an EPA chemical-resistance category selection chart.

### Applicators and other handlers must wear:

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves – EPA chemical resistance category B (e.g. barrier laminate or butyl rubber  $\geq$  14 mils)
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure
- Chemical resistant apron when mixing, loading, or cleaning equipment
- For shadehouse and greenhouse use, applicators and other handlers must wear a dust/mist filtering NIOSH approved respirator with any R, P, or HE filter.

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.

## USER SAFETY RECOMMENDATIONS

- Users should:**
- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
  - 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, 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 wash water 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

Do not use or store near heat or open flame.

## STORAGE AND DISPOSAL

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

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

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

**Container Disposal (Nonrefillable Container):** Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Offer for recycling, if available.

**Residue Removal:** Triple rinse or pressure 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. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident, call CHEMTREC AT 1-800-424-9300**

## DIRECTIONS OF USE

It is a violation of Federal (U.S.A.) 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 worker entry into treated areas during the restricted-entry interval (REI) of 12 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:

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves – EPA chemical resistance category B (e.g. barrier laminate or butyl Rubber  $\geq$  14 mils)
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure

## **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 Standard for agricultural pesticides (40 CFR part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

**Do not re-enter treated areas until sprays have dried.**

Lucid is an emulsifiable concentrate which when mixed with water according to the directions for use will control leafminers and mites and suppress whiteflies, thrips and aphids on ornamentals.

Mix with sufficient water and apply as a foliar spray to obtain uniform coverage. For mites, apply when mites first appear and repeat as necessary to maintain control. For leafminers, apply as needed and repeat at 7-day intervals or as necessary to maintain control.

For suppression of aphids, thrips and whiteflies, apply when young, immature stages of these pests are first observed and repeat every 7 days for two or three weeks. After which time, rotate to other products that have different modes of action than Lucid for at least two to three weeks. Refer to the RESISTANCE MANAGEMENT section for additional comments of rotation. Aphids, thrips and whiteflies are killed by direct contact with the Lucid spray.

Residual control of pests may be enhanced with the addition of a horticultural spray oil at 0.5 to 1.0% of the spray volume on field-grown woody ornamentals, landscape plants and Christmas trees. Repeat application as necessary, but no sooner than 7 days to maintain control. Some plants are sensitive to oils and so without prior experience the user should spray a small number of plants and observe plants for two weeks before spraying the remaining plants. Excessive cold or warm temperatures may increase the chance of plant damage following application with oils. Carefully read and follow directions on the oil label and do not exceed maximum rates listed on either label.



## APPLICATION INFORMATION AND USE RATES

### Shadehouse, Greenhouse, Field-Grown Ornamentals, Foliage Plants, Christmas Trees and Other Woody Ornamentals

Pests	fl.oz Lucid/100 gals.	Comments
Mites <sup>1</sup> : European Red Mite Two-spotted Spider Mite Carmine Spider Mite Southern Red Mite Spruce Spider Mite  Tarsonemid Mites: Cyclamen and Broad Mites  Eriophyid Mites: Rust and Bud Mites	4	For Tarsonemid mites, repeat applications to newly developing tissue may be necessary to maintain control.
<i>Liriomyza</i> Leafminers <sup>2</sup>	8	Repeat at 7-day intervals or as necessary to maintain control.
Boxwood Leafminer	8	For control of mining larvae, make the application when adults are beginning to lay eggs in the new foliage.
Aphids, Thrips and Whiteflies	8	For suppression of pest populations, young immatures must be contacted by the spray.

**General Information per 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.

<sup>1</sup>Apply, for example, 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.

<sup>2</sup>Apply, for example, 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.

## RESISTANCE MANAGEMENT

Treatment may not be effective against these pests if Lucid-tolerant strains develop. Therefore, when applying Lucid to plants that are hosts of labeled pests with multiple generations per crop or year, resistance management strategies must be used. Such strategies may include, but are not limited to, rotation of products with different modes of action, avoid treatment of successive generations with the same product, use of labeled rates at specified spray intervals, nonchemical alternatives such as beneficial arthropods, rotation of susceptible to non-susceptible plants and various cultural practices.

For additional information on the implementation of these or other resistance management strategies, consult with your State Cooperative Extension Service.

To manage susceptibility in *Liriomyza* leafminer species, apply a maximum of three applications of Lucid and then rotate to Citation® for a maximum of three applications, before rotating back to Lucid or using another product. The rotation between these two products with different modes of action should be based on the generation time of *Liriomyza* species to avoid applying Lucid to successive generations.

## RESTRICTIONS

Do not use Lucid for suppression of aphids, whiteflies and thrips on roses, chrysanthemums and gerbera. These ornamentals are primary hosts of mites and *Liriomyza* leafminers for which Lucid applications should be targeted. Additional applications of Lucid 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 to Lucid among these pests.

Do not apply this product through any type of irrigation system.

Not for aerial application.

Do not use in citrus nurseries.

Lucid has been evaluated for phytotoxicity on a wide range of ornamental plants. However, since all combinations or sequences of pesticide sprays including surfactants and adjuvants have not been tested, it is recommended that a small area be sprayed first to make certain that no phytotoxicity occurs. Phytotoxicity has been observed following the use of Lucid on certain species of ferns (e.g. *Adiantum* spp.) and Shasta Daisy (*L. Eucanthemum* spp.). It is therefore recommended that Lucid not be used on ferns or Shasta Daisy.

## CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

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

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

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Manufactured for:  
**Rotam North America, Inc.**  
1400 NW 107th Avenue, Suite 310  
Miami, FL 33172  
1-866-927-6826