

2724-476

1-24-2003

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# ENSTAR® II INSECT GROWTH REGULATOR

For Control of Whiteflies, Thrips, Aphids, Soft-bodied and Armored Scales,  
Mealybugs, and Fungus Gnats  
in Greenhouses, Shadehouses, Lath Houses,  
and Interiorscapes (i.e., Atriums) on Ornamental Plants

### ACTIVE INGREDIENT

S-Kinoprene (CAS # 65733-20-2)

65.1%

OTHER INGREDIENTS\*

34.9%

TOTAL

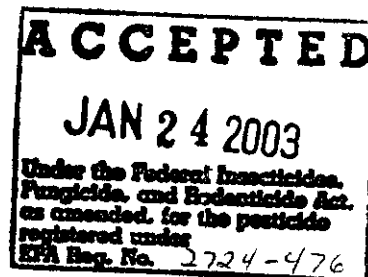
100.0%

\* Contains petroleum distillates

Contains 0.625 lb active ingredient per pint

EPA Reg. No. 2724-476

EPA Est. No.



Net Contents:

**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 Booklet For Additional Precautionary Statements

(For use on 5 oz bottle)

### AGRICULTURAL USE REQUIREMENTS

See booklet.

Wellmark International  
Schaumburg, IL 60173

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS - WARNING**

Causes substantial but temporary eye injury. Harmful if swallowed or absorbed through skin. Do not get in eyes, on skin, or clothing. Wear protective eyewear (goggles, face shield, or safety glasses). Harmful if inhaled, avoid breathing spray mist. May also cause skin sensitization reactions in certain individuals. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

<b>FIRST AID</b>	
Call a poison control center or doctor immediately for treatment advice.	
If in eyes	<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> </ul>
If swallowed	<ul style="list-style-type: none"> <li>• Immediately call a poison control center or doctor for treatment advice.</li> <li>• Do not give any liquid to the person.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
If inhaled	<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> </ul>
If on skin or clothing	<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> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-[phone number] for emergency medical treatment information.	
<b>NOTE TO PHYSICIAN:</b> If ingested, do not induce vomiting. May present aspiration hazard.	

[Note: First Aid statement paragraph format may be used if space is limited.]

**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 F on an EPA chemical resistance category section chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber, 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 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 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.

**PHYSICAL OR 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 worker 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:

- Coveralls
- Chemical-resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber, or viton
- Shoes plus socks
- Protective eyewear

**MIXING INSTRUCTIONS**

1. Partially fill spray tank with water, then add labeled amount of ENSTAR® II, agitate, and complete filling.
2. Use diluted spray solution within 24 hours; always agitate before using.

**APPLICATIONS FOR GREENHOUSE, SHADEHOUSE, AND LATH HOUSE GROWN PLANTS**

**RATE OF APPLICATION**

**For Whiteflies, Thrips, Aphids, Soft-bodied and Armored Scales:**

- **Preventative Program:** Before insect populations reach damaging levels, mix ENSTAR II at the rate of 5 ounces per 100 gallons of water and apply to runoff every 2 weeks.
- **Curative Program:** For an existing population of adult insects, make 2 applications 7 days apart of ENSTAR II to runoff at a rate of 10 ounces per 100 gallons of water per 20,000 square feet. Two weeks later, begin the Preventative Program by using 5 ounces ENSTAR II per 100 gallons of water to spray 20,000 square feet.

**For Fungus Gnat Control:** For the control of larvae and adult fungus gnat in moderate infestations, apply ENSTAR II at 5 ounces per 100 gallons of water (8 ml/1½ tsp) in 5 gallons per 1,000 sq ft, increase rate to 10 ounces (15 ml/1 tablespoon) per 5 gallons water per 1,000 sq ft for heavy infestations. Complete coverage of soil is essential for fungus gnat control. Water as a drench after spraying to insure ENSTAR II contact with larvae and eggs. Apply ENSTAR II for fungus gnat control before or after emergence of seedlings or on established production. Make 2 applications 7 to 10 days apart. Monitor fungus gnat population and make additional applications if necessary.

**For Root (Ground) Mealybug:** When infestations of root mealybugs are observed, drench the entire pot containing the infested plant by submersion in a solution of ENSTAR II at a rate of 1 tablespoon (15 ml) per 5 gallons of water. Continue submersion until no more air bubbles are seen escaping from the fluid surface. This insures that the root system is saturated and the container is thoroughly treated. Repeat as necessary.

**Square Footage:** When using 5 oz of ENSTAR II for Preventative Program or 10 oz for a Curative Program, refer to table below for square footage calculations:

Water to be Used*	100 gal	50 gal	25 gal	12.5 gal	5 gal
Square Feet	20,000	10,000	5,000	2,500	1,000
Preventative	5 oz (148 ml)	2½ oz (74 ml)	1¼ oz (37 ml)	2/3 oz or 1¼ tablespoon (19 ml)	¼ oz (8 ml) or 1½ tsp
Curative	10 oz (296 ml)	5 oz (148 ml)	2½ oz (74 ml)	1¼ oz (37 ml)	½ oz or 1 tablespoon (15 ml)

\*When using Electro Static Spraying System (ESS®) or Puls-fog® equipment, apply the recommended amount of ENSTAR II over the square footage with the manufacturer's requirement of water. Follow manufacturer's calibration procedures.

**METHODS OF APPLICATION**

Complete coverage of foliage is essential for control of whiteflies, thrips, aphids, mealybugs, fungus gnats, and scales. For conventional spray equipment, mix the labeled amount of ENSTAR II and water and spray both top and bottom surfaces of leaves until runoff. For other applications, follow the equipment manufacturer's specifications.

ENSTAR II is compatible with other commonly used insecticides and miticides, such as MAVRIK AQUAFLOW®. Before mixing in spray tank; however, it is advisable to test physical compatibility by mixing all components in a small container in proportionate quantities. Read and follow all precautionary statements, mixing instructions, and label directions on tank mix products.

**EFFECTS ON PLANTS**

Slight to moderate injury has occasionally been noted on some blooms under certain conditions. For insect control, apply in the pre-bloom stage. Possible crop injury can be avoided if a grower test sprays a small numbers of plants to determine plant safety under his own cultural conditions.

Applications of ENSTAR II have been made to greenhouse/shadehouse/lath house plants (aluminum plant, azalea, Boston fern, bromeliad, chrysanthemum, devil's ivy, dianthus, dracaena compacta, emerald gem nephthylis, English ivy, epipremnum aureum, exotica perfection dumbcane, false aralia, fluffy ruffles fern, fuchsia, geranium, gerbera, gloxinia, heartleaf philodendron, hydrangea, kalanchoë, lantana, lily, marigold, pelargonium, petunia, purple passion plant, red-veined prayer plant, Sanders dracaena, snapdragon, table fern, variegated oval leaf peperomia, wax plant, weeping fig), foliage plants (areca palm, aucubifolium [cotton], coleus varieties, commutatum evergreen, coral ardisia, grape ivy, neanthe belle palm, sprengeri fern, zebra plant) without adverse effects.

**Apply ENSTAR II to poinsettia prior to bract formation. Foliar damage on some sensitive varieties can result; therefore, test on a small area before large-scale use. Some varieties of roses, such as yellow blooded roses, show delayed damage.**

**DIRECTIONS THROUGH SPRINKLER IRRIGATION SYSTEMS**

Apply this product only through sprinkler irrigation systems including drip, microjet, and overhead irrigation. Do not apply this product through any other type of irrigation system. NOTE: DO NOT USE IRRIGATION SYSTEMS THAT DO NOT PENETRATE TO PESTS ON THE UNDERSIDE OF LEAVES AS ERRATIC RESULTS CAN OCCUR. DO NOT USE CHEMIGATION WHEN TREATING FOR ROOT MEALYBUGS.

**SPRAY PREPARATION:** Remove scale, pesticide residues, and other foreign matter from the chemical tank and entire injector system. Flush with clean water.

**APPLICATION INSTRUCTIONS:** First prepare a suspension of ENSTAR II in a mix tank. Fill tank with ½ to ¾ the desired amount of water. Start mechanical or hydraulic agitation. Add the required amount of ENSTAR II and then the remaining volume of water. Then set irrigation

equipment to deliver the appropriate amount of ENSTAR II per 20,000 sq. ft. Use sufficient irrigation to provide adequate coverage of leaves. For control of soil-dwelling fungus gnat larvae, use only drip or microjet irrigation systems, prepare the ENSTAR II solution as previously described and deliver the appropriate amount of ENSTAR II in an equivalent to ¼ inch of water per 20,000 square feet. Start sprinkler and uniformly inject the suspension of ENSTAR II into the irrigation water line so as to deliver the desired rate. The suspension of ENSTAR II should be injected with a positive displacement pump into the main line ahead of a right angle turn to insure adequate mixing. Allow foliage to dry prior to resuming normal irrigation. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

**GENERAL PRECAUTIONS FOR APPLICATIONS THROUGH SPRINKLER IRRIGATION**

**SYSTEMS:** Maintain continuous agitation in mix tank during mixing and application to assure a uniform suspension. Where distribution patterns do not overlap sufficiently, unacceptable control may result. Where distribution patterns overlap excessively, injury to desirable plants may result.

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. The pesticide injection pipeline must contain a functional, automatic quick-closing check valve to prevent the flow of fluid back toward the injection pump. 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. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. 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 the 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.

Crop injury, lack of effectiveness or illegal pesticide residues in the crop can result from nonuniform distribution of treated water. Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water. 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. 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.

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**STORAGE AND DISPOSAL**

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

**Storage:** Store 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**

**Disposal (Plastic):** Triple rinse or equivalent, then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Seller makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risks of use and handling of this material when such use and handling are contrary to label instructions.

ENSTAR® II Insect Growth Regulator and MAVRIK AQUAFLOW® are registered trademarks of Wellmark International.

ESS® is a registered trademark of Electrostatic Spraying Systems.

Puls-Fog® is a registered trademark of Dramm International.

For information or in case of an emergency, call [phone number] or visit our Web site: [URL]

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