



## Biological Insecticide

### For Use Against Thrips In Greenhouses

**Active Ingredient:** GS-omega/kappa-Hxtx-Hv1a ..... 20.00%  
**Other Ingredients:** ..... 80.00%  
**Total:** ..... 100.00%

NOTICE: Read the entire label. Use only according to label instructions. Before using the product, read TERMS AND CONDITIONS OF USE, WARRANTY DISCLAIMER, INHERENT RISKS OF USE and LIMITATION OF REMEDIES at the end of the label instructions. If such terms are unacceptable, return the unopened package at once to Vestaron Corporation.

**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

FIRST AID	
<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 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 treatment advice.</li></ul>
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-222-1222 for emergency medical treatment information.	

**EPA Reg. No.:** 88847-2  
**EPA Est. No.:** 88847-MI-001  
**Net Weight:** 5 lbs  
**Lot No:** XXXX



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### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation. 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.

To minimize potential exposure to bee larvae: **Do Not** apply this product at any time between 4 days prior to bloom and until after petal fall, or if bees are foraging in the treatment area.

#### 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
- Waterproof gloves
- Shoes plus socks

### PRODUCT INFORMATION

SPEAR T is a biological insecticide containing the active ingredient GS-omega/kappa-Htx-Hv1a for use on ornamental plants and edible crops. SPEAR T functions primarily as a central nervous inhibitor of target pests infesting labeled

crops. SPEAR T is mixed with water and applied as a foliar spray.



### USE INSTRUCTIONS

SPEAR T is a highly selective insecticide for use against the listed insect pest. Close scouting and early attention to infestations is highly recommended. Proper timing of application targeting newly hatched larvae is important for optimal results.

Thorough coverage of infested plant parts is necessary. SPEAR T does not have systemic activity. Under heavy pest populations shorten the spray interval, and/or increase the spray volume to improve coverage.

Repeat applications at 3-10 day intervals depending upon plant growth rate, insect activity, and other factors.

Tank mix with contact insecticides/miticides, to enhance performance. Refer to tank mix section.

For hard-to-wet crops, consider using a spreader/sticker or an adjuvant that has been approved for targeted crop use to enhance the adhesion of SPEAR T to the crop. Examples of appropriate spreader/stickers or adjuvants are: 1) alkoxylated surfactants, 2) organic silicates, 3) vegetable oils, 4) methylated vegetable oils, 5) mineral oils, and/or 6) phospholipids. SPEAR T has been evaluated for phytotoxicity on a variety of crops under various normal growing conditions. However, testing all crop varieties, in all mixtures and combinations is not feasible. Prior to treating entire crop, test a small portion of the crop for sensitivity.

Integrated Pest Management (IPM):

SPEAR T is an important tool in sound insect management whenever insecticide use is necessary. Apply SPEAR T alone or in combination and / or rotation with chemical insecticides. This will result in reduced susceptibility to insect damage and overall reduction in the use of chemical insecticides. Consult local agricultural authorities for specific IPM strategies developed for your crop(s) and location.

### Mixing directions:

**Important** – Do not add SPEAR T to the mix tank before introducing the desired amount of water. Add water to the mix tank. Start the mechanical or hydraulic agitation to provide moderate circulation before adding SPEAR T. Add the desired

volume of SPEAR T to the mix tank and continue circulation. Maintain circulation while loading and spraying. Do not mix more SPEAR T than can be used in 24 hours.

**Tank mixing:**

Do not combine SPEAR T in the spray tank with other pesticides, surfactants, adjuvants, or fertilizers if there has been no previous experience or use of the combination to show it is physically compatible, effective, or non-injurious under your use conditions. Follow the most restrictive of the labeling limitations and precautions of all products used in mixtures.

To ensure compatibility of tank-mix combinations they must be evaluated prior to use. To determine the physical compatibility of this product with other products use a jar test. Using a quart jar, add the proportionate amounts of the products to one quart of water with agitation. Add dry formulations first, then flowables, then emulsifiable concentrates last. After thoroughly mixing, let this mixture stand for 5 minutes. If the combination remains mixed or can be readily be re-mixed, it is physically compatible. Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank.

**CHEMIGATION USE DIRECTIONS**

Apply this product only through sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation systems. Do not connect an irrigation system (including greenhouse systems) used for pesticide applications to a public water system.

**Spray preparation**

First prepare a suspension of SPEAR T in a mix tank. Fill tank ½ to ¾ the desired amount of water. Start mechanical or hydraulic agitation. Add the required amount of SPEAR T, and then the remaining volume of water. Then set the sprinkler to deliver a minimum of 0.1 to 0.3 inch of water per acre. Start sprinkler and uniformly inject the suspension of SPEAR T into the irrigation water line so as to deliver the desired rate per acre. Inject the suspension of SPEAR T with a positive displacement pump into the main line ahead of a right angle turn to insure adequate mixing. Any questions on calibra-

tion should be directed to your State Extension Service Specialists, to equipment manufacturers or other experts.

Do not combine SPEAR T with pesticides, surfactants or fertilizers for application through chemigation equipment unless prior experience has shown the combination physically compatible, effective and non-injurious under conditions of use. SPEAR T has not been fully evaluated for compatibility with all adjuvants or surfactants. It is advisable to conduct a spray compatibility test if a mixture with adjuvants or surfactants is planned.

**GENERAL PRECAUTIONS FOR APPLICATIONS THROUGH SPRINKLER IRRIGATION SYSTEMS**

Maintain continuous agitation in the mix tank during mixing and application to insure a uniform suspension. Greater accuracy in calibration and distribution will be achieved by injecting a larger volume for a more dilute solution per unit time. Crop injury or lack of effectiveness can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts. 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. 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. Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation waters.

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, 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 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 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. Do not apply when wind speed favors drift beyond the area intended for treatment.

Do not apply when wind speed favors drift, when system connections or fittings leak, when nozzles do not provide uniform distribution or when lines containing the product must be dismantled and drained.

**APPLICATION RATES FOR SPEAR T ON THE FOLLOWING CROPS:**

**Pre-harvest Interval (PHI) = 0 days**

**Commercial Flowers and Ornamental Plants**

Crop	Insect Pest	Application Rate
Bedding Plants Flowers Greenhouse ornamentals Greenhouse vegetables	Thrips	11-64 oz. SPEAR T/100 gallons of water

**TERMS AND CONDITIONS OF USE**

If the terms of the following WARRANTY DISCLAIMER, INHERENT RISKS OF USE, and LIMITATION OF REMEDIES are not acceptable, return the unopened package at once to Vestaron Corporation. Otherwise, use of the product will constitute acceptance of the terms under WARRANTY DISCLAIMER, INHERENT RISKS OF USE and LIMITATION OF REMEDIES.

**WARRANTY DISCLAIMER**

TO THE EXTENT PERMITTED BY APPLICABLE LAW, VESTARON CORPORATION MAKES NO WARRANTY, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS OR OTHERWISE CONCERNING USE OF THE PRODUCT.

**INHERENT RISKS OF USE**

It is impossible to eliminate all risks associated with use of the product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use, storage or handling of the product not in strict accordance with the accompanying label instructions, abnormal conditions, presence of other materials, or other factors, all of which are beyond the control of Vestaron Corporation. All

such risks shall be assumed by the user.

**LIMITATION OF REMEDIES**

To the extent permitted by law, the exclusive remedy for losses or damages resulting from the product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to replacement of the amount of product used.

To the extent permitted by law, Vestaron Corporation disclaims any liability for incidental, consequential, exemplary, special or indirect damages resulting from the use, storage or handling of the product.

The terms of the WARRANTY DISCLAIMER, INHERENT RISKS OF USE, and LIMITATION OF REMEDIES **cannot be varied by any written or verbal statements or agreements. No employee or other agent of Vestaron Corporation is authorized to vary or exceed the terms of the WARRANTY DISCLAIMER, INHERENT RISKS OF USE, and LIMITATION OF REMEDIES in any manner/may be varied only by agreement in writing signed by a duly authorized representative of Vestaron Corporation.**

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#### PRECAUTIONARY STATEMENTS

**Hazards to humans and domestic animals - CAUTION.** Causes moderate eye and skin irritation. Avoid contact with eyes, skin or clothing. Wear protective eyewear and gloves. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

#### Personal Protective Equipment (PPE):

Applicators and other handlers must wear:

- long-sleeved shirt and long pants
- waterproof gloves
- shoes plus socks

Follow the manufacturer's instructions for cleaning / maintaining PPE. If no instructions are available, use detergent and hot water for washables. Keep and wash PPE separately from other laundry.

**Engineering Controls:** When handlers use closed systems, enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [10 CFR 170.240(d)(406)], the handler PPE requirements may be reduced or modified as specified in the WPS.

#### USER SAFETY RECOMMENDATIONS

Users should:

- Remove clothing/PPE 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.

**Environmental Hazards:** For terrestrial uses: Exposure of adult bees to direct treatment or residues on blooming crops can lead to effects on honey bee larvae. See the "Directions for Use" section of this label for application instructions that minimize risk to honey bee larvae. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean highwater mark. Do not contaminate

water when disposing of equipment washwaters or rinsate.

#### STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store in original container at less than 40°F for up to 6 months after date of manufacture.

**Pesticide Disposal:** To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

**Container Handling:** Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment by shaking and tapping sides and bottom to loosen clinging particles. Then offer for recycling if available, or dispose of empty bag in a sanitary landfill or by incineration. Do not burn unless allowed by state and local ordinances.

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