1. IDENTIFICATION

Trade Name: Spear-Lep
Active Ingredient: GS-omega/kappa-HxTx-Hv1a
Other Means of identification: EPA Reg. No. 88847-6
Recommended Use: Biological Insecticide

MANUFACTURER:
Vestaron Corporation
600 Park Offices Drive, Suite 117
PO Box 13137
Research Triangle Park, NC 27709
(919) 694-1022

EMERGENCY TELEPHONE NUMBER:
1-800-535-5053 (Infotrac)

2. HAZARDS IDENTIFICATION

Hazard Classification: Category 4, Acute toxicity - Inhalation

Signal Word: Warning
Hazard Statements: Harmful if inhaled
Precautionary Statements:
Prevention: Avoid breathing mist or spray. Use only outdoors or in a well-ventilated area.
Response: If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell.
Other Hazards: None Known

This material is considered hazardous by the OSHA Hazard Communication Standard (29CFRx1910.1200)
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>CAS No.</th>
<th>% (wt/wt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GS-omega/kappa-Hxtx-Hv1a</td>
<td>2307677-15-0</td>
<td>2.0</td>
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4. FIRST AID MEASURES

**EYE CONTACT:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention

**INHALATION:** Remove individual to fresh air. If signs of toxicity occur, seek medical attention.

**SKIN CONTACT:** Wash affected area with plenty of soap and water.

**INGESTION:** Remove from source of exposure. If signs of toxicity occur, seek medical attention.

**MOST IMPORTANT SYMPTOMS:** Not applicable

**IMMEDIATE MEDICAL ATTENTION NEEDED:** In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

5. FIRE-FIGHTING MEASURES

**EXTINGUISHING MEDIA:** All methods. However, the product is non-flammable.

**SPECIFIC HAZARDS ARISING FROM CHEMICAL:** None known.

**SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS:** None known.

6. ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, & EMERGENCY PROCEDURES:** Wash the spill area.

**ENVIRONMENTAL PRECAUTIONS:** Product not classified as hazardous for the environment. Avoid spills as much as possible.

**METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:** Recover product and place in an appropriate container for disposal.
7. HANDLING & STORAGE
PRECAUTIONS FOR SAFE HANDLING: Avoid contact with skin and eyes. Wear impervious gloves, protective clothing, and safety goggles.
CONDITIONS FOR SAFE STORAGE: Store in original container at room temperature. Do not allow product to freeze. Keep container closed and away from moisture when not in use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION
EXPOSURE LIMITS: This product does NOT contain substances with PEL, ACGIH, or TLV values.
ENGINEERING CONTROLS: Use outdoors or in a well-ventilated area. Use good general industrial hygiene practice.
PERSONAL PROTECTION: Wear impervious gloves, protective clothing, and safety goggles.

9. PHYSICAL & CHEMICAL PROPERTIES
APPEARANCE: Brown liquid
ODOR THRESHOLD: Not determined
EVAPORATION RATE: Not determined
VAPOR PRESSURE: Not determined
RELATIVE DENSITY: 1.03 g/mL
SOLUBILITY in water: Soluble
FLAMMABILITY LIMITS: Not determined
AUTO-IGNITION TEMP: Not determined
PARTITION COEFFICIENT: Not determined
ODOR: Yeast
FLASH POINT: Not determined
FLAMMABILITY: Not flammable
MELTING POINT: Not determined
BOILING POINT: Not determined
VAPOR DENSITY: Not determined
VISCOSITY: 1.6 Cs (20°C)
pH: 4.5-6.0 (2% v/v)
DECOMPOSITION TEMP: Not determined

10. STABILITY & REACTIVITY
REACTIVITY: Non-reactive.
STABILITY: Stable under recommended storage conditions.
HAZARDOUS POLYMERIZATION: Does not occur.
CONDITIONS TO AVOID: No data available.
INCOMPATIBILITY: No data available.
HAZARDOUS THERMAL DECOMPOSITION PRODUCTS: None known.

11. TOXICOLOGICAL DATA
INFORMATION ON LIKELY ROUTES OF EXPOSURE: Inhalation, dermal contact, eye contact, ingestion.
POTENTIAL ACUTE HEALTH EFFECTS:
INHALATION: May be harmful if inhaled.
EYE CONTACT: Possible irritation.
SKIN CONTACT: Possible irritation in case of prolonged contact
INGESTION: Possible pain in esophagus and stomach, gastrointestinal symptoms.

POTENTIAL CHRONIC HEALTH EFFECTS: None known.

INFORMATION ON TOXICOLOGICAL EFFECTS
ACUTE TOXICITY: Oral >5000 mg/kg, Dermal >5000 mg/kg, Inhalation > 2.05 mg/L. No deaths reported at this level.
SKIN IRRITATION: Not a sensitizer
EYE IRRITATION: Causes initial mild eye irritation
SENSITIZATION: Not a contact skin sensitizer
MUTAGENICITY: No data available
CARCINOGENICITY: No ingredients are listed by NTP, OSHA, or ACGIH as a carcinogen.
REPRODUCTIVE TOXICITY: No data available.
TETRATOGENICITY: No data available.
SPECIFIC TARGET ORGAN TOXICITY: No data available.

12. ECOLOGICAL INFORMATION
Not Available

13. DISPOSAL CONSIDERATIONS
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 Disposal:
For plastic containers less than or equal to 5 gallons: Nonrefillable container. Do not reuse or refill this container. Triple 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 ¼ 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. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill or by incineration.

For plastic containers greater than 5 gallons: Nonrefillable container. Do not reuse or
refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten enclosures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill or by incineration.

14. TRANSPORT INFORMATION

**DOT:** Not regulated as dangerous goods.

**IATA:** Not regulated as dangerous goods.

**IMDG:** Not regulated as dangerous goods.

15. REGULATORY INFORMATION

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Federal Insecticide, Fungicide and Rodenticide Act**

EPA Registration Number: 88847-6

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

**CAUTION**

Harmful if absorbed through skin.

Causes moderate eye irritation.

- **SARA Title III**
- **Section 355 (extremely hazardous substances):**
  None of the ingredients are listed.
- **Section 313 (Specific toxic chemical listings):**
  None of the ingredients are listed.
- **TSCA (Toxic Substances Control Act):**
  This product contains chemical substance(s) either listed on, or exempt from, U.S. EPA TSCA Inventory requirements.
- **Proposition 65**
- **Chemicals known to cause cancer:**
  None of the ingredients are listed.
- **Chemicals known to cause reproductive toxicity for females:**
  None of the ingredients are listed.
· Chemicals known to cause reproductive toxicity for males:
  None of the ingredients are listed.
· Chemicals known to cause developmental toxicity:
  None of the ingredients are listed.

Carcinogenicity categories
· EPA (Environmental Protection Agency)
  None of the ingredients are listed.
· TLV (Threshold Limit Value established by ACGIH)
  None of the ingredients are listed.
· NIOSH-Ca (National Institute for Occupational Safety and Health)
  None of the ingredients are listed.
· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

16. OTHER INFORMATION
  Prepared according to the (US) Hazard Communication Standard (29 CRF 1910.1200)