Safety Data Sheet in accordance with US HazCom 2012

SECTION 1: IDENTIFICATION

1.1 Product identifier

Trade Name: Spear LEP
Product form: mixture
Alternate Identifiers: VST-006340 LC

1.2 Relevant identified uses of the substance or mixture and uses advised against

Spear LEP is a biological insecticide intended to be used for plant protection purposes.
Uses advised against: Uses not listed on the label.
Reasons for use advised against: Product for agricultural use only, any other use is not recommended.

1.3 Details of the supplier of the safety data sheet

Suterra LLC
20950 NE Talus Place
Bend, Oregon 97701 (U.S.A.)
TEL: (541) 388-3688
FAX: (541) 388-3705

1.4 Emergency telephone number

EMERGENCY TELEPHONE NUMBERS:	1-866-326-6737
LEAK, FIRE, SPILL, OR ACCIDENT:	(800) 424-9300 (CHEMTREC – U.S.A. & CANADA) (703) 527-3887 (CHEMTREC – Collect - All Other Countries)
MEDICAL:	National Pesticides Information Center 1-800-858-7378, 6:30 am - 4:30 pm Pacific Time (PT), 7 days a week Poison Control Center 1-800-222-1222

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture

In consideration of the product formulation and characteristics the proposed classification is:

Category 4, Acute Toxicity - Inhalation

2.2 Labels elements

This product is registered under the USA Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The FIFRA label elements are presented within Section 15 of this SDS.
The OSHA HazCom 2012 label elements presented are consistent for chemicals in the workplace. The USA EPA recognizes that conflicts between FIFRA labels and the labels of other chemicals in the workplace could mislead workers about hazards, in some instances perhaps creating the impression that pesticides are less hazardous when they are not. Confusion due to inconsistent labeling could result in increased risks to works. Workers should review and follow the hazards and risk management statements on the FIFRA label.

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR1910.1200)

Hazard pictograms and signal words



Warning

Hazard Statements

H332: Harmful if inhaled

Precautionary Statements

P261 Avoid breathing vapors.
P271 Use only outdoors or in a well-ventilated area.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.

2.3 Other hazards

The mixture does not meet the criteria for PBT or vPvB.
The substances contained in the product do not meet the criteria to be identified as endocrine disruptors.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable. The product is not a substance or nanoform.

3.2 Mixtures

Name	CAS n.	Content % w/w
GS-omega/kappa-Hxtx-Hv1a	2307677-15-0	2.0

SECTION 4: FIRST-AID MEASURES

4.1 Description of first aid measures

IF INHALED: Move person to fresh air. If person is not breathing call 911 or an ambulance then give artificial respiration, preferably mouth-to-mouth if possible. Call a Poison Control Center or doctor for further treatment advice.

IF ON SKIN: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a Poison Control Center or doctor for advice.

IF IN EYES: Hold eye(s) open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, and continue rinsing. Call a Poison Control Center or doctor for advice.

IF SWALLOWED: Call Poison Control Center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a Poison Control Center or doctor. Do not give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

No acute or adverse delayed effects are expected.

4.3 Indication of any immediate medical attention and special treatment needed

IN CASE OF ACCIDENT OR DISCOMFORT, seek medical advice immediately.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media.

All methods. However, the product is non-flammable.

5.2 Special hazards arising from the substance or mixture

None known.

5.3 Advice for firefighters

Evacuate area of all unnecessary personnel. Collect the water used to extinguish the fire and avoid release in the sewage system. Use standard firefighting procedures.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes. Wear impervious gloves, protective clothing, and safety goggles.

6.2 Environmental precautions

Avoid release to the environment. Keep away from drainage system, surface and ground water. Prevent infiltration of water sources and sewers.

6.3 Methods and material for containing and cleaning up

Contain the dispersion. Use absorbent material and remove in a clean container. Wastes should be disposed according to current legislation.

6.4 Reference to other sections

Please, refer to section 8 and to section 13 for further information.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Wear protective clothing as described in section 8, if justified by exposure conditions. Avoid unnecessary contact with eyes and skin. Wash hands with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing/PPE immediately after handling this product. Wash the outside of gloves before removing. Wash contaminated clothing before reuse. Prevent contamination of water sources, food or feed.

7.2 Conditions for safe storage, including any incompatibilities

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.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Spear LEP
No additional information available

GS-omega/kappa-HxTx-Hv1a (CAS: 2307677-15-0)
No additional information available

8.2 Exposure controls

Personal protection information provided in this section is based upon general information as to normal uses and conditions.

Individual protection measures, such as personal protective equipment (professional user)

Eye/face protection: Avoid contact with eyes. The use of specific protective equipment is not required.

Hand protection: Chemical resistant gloves. Wash the outside of gloves before removing.

Skin protection: Avoid contact with skin. Wear long-sleeved shirts, long trousers, shoes and socks during application and handling.

Respiratory protection: Do not breathe vapors. No type of specific protective equipment is required.

Environmental exposure controls

Avoid release to the environment. Do not contaminate water with the product or the container.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state: Liquid.

Appearance:

- Color: Brown.
- Odor: Yeast.
- Odor threshold: None.

pH (room temperature): 4.5-6.0 (2% v/v).

Melting point/freezing point: Not determined.

Initial boiling point and boiling range: Not determined.

Flash point: Not determined.

Evaporation rate: Not determined.

Flammability (solid, gas): Not flammable.

Upper/lower flammability or explosive limits: Not determined.

Vapor pressure: Not determined.

Vapor density: Not determined.

Relative density: 1.03 g/mL.

Solubility(ies): in water: Soluble.

Partition coefficient n-octanol/water: Not determined.

Auto-ignition temperature: Not determined.

Decomposition temperature: Not determined.

Viscosity: 1.6 Cs (20°C).

Explosive properties: The product does not contain any explosive substance and is not explosive.

Oxidizing properties: The product does not contain any oxidizing substance and is not oxidizing.

9.2 Other information

No additional information is reported.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No reactivity reactions are known or expected to occur as to normal uses conditions.

10.2 Chemical stability

The product is stable at recommended storage conditions and for the use under the conditions reported in the label.

10.3 Possibility of hazardous reactions

No hazardous reactions are known or expected for uses according to label instructions. No hazardous polymerization will occur.

10.4 Conditions to avoid

Store in its original container in a dry, cool and well-ventilated area until is used.

10.5 Incompatible materials

None known. Keep in its original package.

10.6 Hazardous decomposition products

None known under recommended storage and use conditions. In case of fire, carbon oxides, nitrogen oxide and ammonia and are formed when the product is burned.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

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.

a) Acute toxicity
- LD_{50} Oral: > 5000 mg/kg bw.
- LD_{50} Dermal: > 5000 mg/kg bw.
- LC_{50} Inhalative: > 2.05 mg/l air.

b) Irritation
- Eye irritation: Initial mild eye irritation.
- Dermal irritation: Non irritant.
- Corrosion: Non-corrosive.

c) Sensitization
- Dermal sensitization: Non-sensitizer.

d) Repeated dose toxicity: No data available.

e) Carcinogenicity: No ingredients are listed by NTP, OSHA, or ACGIH as a carcinogen.

f) Mutagenesis: Not a mutagen.
Reproductive toxicity: Not a reproductive toxicant.

11.2 Information on other hazards

As stated in section 2.3, the substances contained in the product do not have adverse health effects caused by endocrine disrupting properties.
Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

No data available. Data based on results for technical active ingredient (GS-omega/kappa-Hxtx-Hv1a) indicate there are no significant adverse effects in ecological environments.

12.2 Persistence and degradability

Does not apply, this product must be collected at the end of the season.

12.3 Bio-accumulative potential

No information available. Exposure not likely.

12.4 Mobility in soil

Not applicable to this product. Exposure not likely.

12.5 Results of PBT and vPvB assessment

The mixture does not meet the criteria for PBT or vPvB according to Annex XIII of Regulation (EC) No. 1907/2006.

12.6 Endocrine disrupting properties

This mixture does not contain any substances that have endocrine-disrupting properties towards non-target organisms as they do not fulfil the criteria of Section B of Regulation (EU) No 2017/2100.

12.7 Other adverse effects

No known adverse effects or hazards.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product: 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: 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.

SECTION 14: TRANSPORT INFORMATION

The suitable shipping classification must be evaluated at the time of shipment due to the possibility for variations in regard to the transportation of this material considering the requirements, modes of transport, packaging, packaging configuration, quantity etc. Please consult the appropriate regulation for specific shipping information and requirements.

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation information can be obtained through the authorized transporting corporation. It is the responsibility of the transporting corporation to follow all applicable laws, regulations and rules relating to the transportation of this product.

ADR/RID/AND/IMDG/IATA

14.1 Number: Not applicable
14.2 UN proper shipping name: Not applicable
14.3 Transport hazard class: Not applicable
14.4 Packing group: Not applicable
14.5 Environmental hazards: Not applicable
Limited quantities: 5Kg

14.6. Special precautions for user

See sections 6 to 8 of the present safety data sheet.

14.7 transport in bulk according to annex II of the Marpol 73/78 Convention and the IBC Code

Not transported in bulk in accordance with the IBC Code.

SECTION 15: REGULATORY INFORMATION

This product is a pesticide product registered by the Environmental Protection Agency on August 16, 2017 with EPA Reg. Number 56336-97 and is subject to certain labelling requirements under Federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDSs), 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 the Directions for Use.

Hazards to Humans and Domestic Animals - CAUTION.
Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin, or clothing. Wear protective eyewear and waterproof 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.

EPA Registration Number: 56336-97

SECTION 16: OTHER INFORMATION

Version 1: Creation of the MSDS

Date of the SDS: June 11, 2026

Abbreviations
CAS – Chemical Abstract Services
EC_{50} – Median lethal exposure concentration
EINECS - European Inventory of Existing Commercial Substances
EPA – Environmental Protection Agency
EU – European Union
irr – irritation
LC_{50} – Median lethal concentration
LD_{50} – Median lethal dose
OSHA – Occupational Safety and Health Administration
PBT – Persistent, Bioaccumulative and Toxic
vPvB - very Persistent and very Bio-accumulative

While this information and recommendations set forth are believed to be accurate as of the date hereof, Suterra LLC makes no warranty with respect hereto and disclaims all liability from reliance thereon.