

## MATERIAL SAFETY DATA SHEET (MSDS)

### SECTION-1 : SUPPLIER AND PRODUCT INFORMATION

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<b>PRODUCT NAME:</b>	<b>LEUCINODES ORBONALIS (Brinjal Shoot &amp; Fruit Borer) PHEROMONE LURE</b>
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### SECTION-2 : HAZARDS IDENTIFICATION FOR ACTIVE INGREDIENTS

<b>Emergency Overview</b>	May be irritating to skin and eyes.
<b>HMIS Rating</b>	Health – 1
	Flammability – 1
	Reactivity – 0

### SECTION-3 : COMPOSITION / INFORMATION ON INGREDIENTS

The following pheromone ingredients are loaded into a rubber septum.

Chemical Name	CAS #	Molecular formula
E-11-hexadecenyl acetate	56218-72-5	<u>C<sub>18</sub>H<sub>34</sub>O<sub>2</sub></u>
E-11-hexadecenol	61301-56-2	<u>C<sub>16</sub>H<sub>32</sub>O</u>

**SECTION-4 : FIRST AID MEASURES FOR ACTIVE INGREDIENTS**

<b>Oral Exposure</b>	Rinse your mouth with sufficient water.
<b>Inhalation Exposure</b>	If inhaled, move to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.
<b>Dermal Exposure</b>	In case of skin contact resulting in irritation flush with copious amounts of water for at least 15 min.
<b>Eye Exposure</b>	In case of contact with eyes, resulting in irritation, flush with copious amount of water for at least 15 min. Assure adequate flushing by separating the eyelids with fingers.

**SECTION-5 : FIRE FIGHTING MEASURES**

<b>Flash Point</b>	N/A
<b>Auto Ignition Temperature</b>	N/A
<b>Flammability</b>	N/A
<b>Extinguishing Media</b>	Carbon dioxide, dry chemical powder or appropriate foam.
<b>Fire Fighting - Protective Equipment</b>	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
<b>Specific Hazard(s)</b>	Not easily combustible. Emits low degree toxic fumes under fire conditions.

**SECTION-6 : ACCIDENTAL RELEASE MEASURES**

<b>Procedure to be followed in case of leak or spill</b>	Evacuate area.
<b>Procedure(s) of personal precaution(s)</b>	Wear self contained breathing apparatus, rubber boots and heavy rubber gloves.
<b>Methods for cleaning up</b>	Cover with dry lime or soda ash, pick up and keep in a closed container for disposal. Ventilate area and wash spill site after material pickup is complete.

**SECTION-7 : HANDLING AND STORAGE**

<b>Handling</b>	Keep the Container tightly closed. Do not breathe vapours.
<b>Storage</b>	Keep away from heat, sparks and open flame, store in a cool dry place away from sun light.

**SECTION-8 : EXPOSURE CONTROLS / PPE**

<b>Engineering Controls</b>	No open flames.
<b>Personal Protective Equipment</b>	At a minimum, workers should wear a NIOSH-approved full face air purifying respirator.
<b>Hand</b>	Compatible chemical resistant gloves recommended for prolonged handling.
<b>Eye</b>	Chemical Safety goggles.
<b>General Hygiene Measures</b>	Wash contaminated clothing before reuse. Wash thoroughly after handling.

**SECTION-9 : PHYSICAL / CHEMICAL PROPERTIES**

<b>Appearance</b>	Pink/Dark red colour rubber septum containing active ingredient
<b>Boiling point of active ingredient</b>	378°C at 760 mmHg
<b>Density of active ingredient</b>	0.89 g/cm <sup>3</sup>

**SECTION-10 : STABILITY AND REACTIVITY**

<b>Stability</b>	Stable.
<b>Materials to avoid</b>	The performance of this product may be affected by strong oxidizing agents.
<b>Hazardous Decomposition Products</b>	N.A.

Hazardous polymerization	Has not been reported.
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**SECTION-11 : TOXICOLOGICAL INFORMATION**

<b>Skin Contact</b>	Product might cause skin irritation upon prolonged contact.
<b>Skin Absorption</b>	Product absorbed through the skin upon prolonged contact.
<b>Eye Contact</b>	Product causes eye irritation if directly rubbed in eye.
<b>Inhalation</b>	Product difficult to inhale. But emitted odours may cause irritation.
<b>Ingestion</b>	May be harmful if swallowed.
<b>Signs and Symptoms of Exposure</b>	To the best of our knowledge, the chemical, physical and toxicological properties of the active ingredients have not been thoroughly investigated
<b>Toxicity Data</b>	No data available.

**SECTION-12 : ECOLOGICAL INFORMATION**

No data available.

**SECTION-13 : DISPOSAL CONSIDERATIONS**

<b>Appropriate Method of Disposal of Substance or Preparation</b>	Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent to burn in a chemical incinerator. Observe all federal, state, and local environmental laws.
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**SECTION-14 : TRANSPORT INFORMATION**

<b>DOT</b>	None
<b>IATA</b>	None

Sea (IMDG)	None
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**SECTION-15 : REGULATORY INFORMATION**

<b>European Information</b>	Based on toxicological studies in the published literature, there is no risk and safety phrase to assign for this product.
<b>United States Regulatory Information</b>	The active ingredients are listed in the following inventories: TSCA, NSDL, ECL, EINECS (252-397-7)
<b>Listed as carcinogen by NTP, IARC or OSHA</b>	No

**SECTION-16 : OTHER INFORMATION**

<b>HMIS® Hazardous Materials Identification System</b>	HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used only in conjunction with a fully implemented HMIS® program by workers who have received appropriate HMIS® training. HMIS® is a registered trade and service mark of the NPCA.
<b>Acronyms</b>	NTP (National Toxicology Program); IARC (International Agency for Research on Cancer); OSHA (Occupational Health and Safety Administration); DOT (U.S. Dept. of Transportation)
<b>Disclaimer</b>	Only for use in crops.

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