MATERIAL SAFETY DATA SHEET

This document has been prepared to meet the requirements of the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200, the EU Directive, 91/155/EEC and other regulatory requirements.

1. Company and Product Identification

Product: Matran™ EC
(DR-E-041)  
Manufacturer: EcoSMART Technologies, Inc.
318 Seaboard Lane, Suite 208
Franklin, TN 37067

Emergency Telephone Number  
InfoTrac Chemical Response System  
(800) 535-5053 (24 hours)

For General Information:  
(888) 326-7233 (8 am to 4 pm CST)

2. Ingredients

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>% by weight</th>
<th>CAS #</th>
<th>Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Active Ingredients:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clove Oil</td>
<td>50.0%</td>
<td>8000-34-8</td>
<td>None established</td>
</tr>
<tr>
<td><strong>Inert Ingredients:</strong></td>
<td>to 100%</td>
<td></td>
<td>None established</td>
</tr>
<tr>
<td>Emulsifiers and solvents</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

3. Hazards Identification

*Overview:* Clear amber liquid with a clove scent.

*Potential Health Effects:* Prolonged exposure to this product may cause skin irritation, eye/nasal irritation, dizziness, headache or nausea.

State of California requires any exempt pesticide product containing 8.5% or more of Clove Oil must at a minimum bear the signal word “CAUTION”, the phrase “Keep Out of Reach of Children”, appropriate precautionary language, and a requirement for protective eyewear and gloves.

4. First Aid Measures

**Eyes:**  
Flush with water for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician if irritation persists.

**Skin:**  
Wash exposed area with soap and water for at least 15 minutes. Remove contaminated clothing. Get medical attention if irritation persists.

**Inhalation:**  
Remove person to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

**Ingestion:**  
Rinse mouth out with water. Obtain medical attention as soon as possible. Do not induce vomiting. Do not give anything by mouth to an unconscious person. Avoid alcohol.

5. Fire Fighting Measures

**Flashpoint:** >190°F (Closed Cup)  
**Flammable Limits:** Not tested
Extinguishing Media: Use Foam, Carbon Dioxide, or Dry Chemical extinguishers.

Fire and Explosion Hazards: None
Special Fire Fighting Procedures: None
Hazardous Decomposition Products: Carbon dioxide, carbon monoxide, smoke, fumes, and unburned hydrocarbons and terpenes.

6. Spill/Leak Procedures

If spilled, absorb liquid with an inert absorbent material and dispose of the empty container and absorbent material in accordance with local ordinances. Components of this product are not considered EPA hazardous wastes.

7. Handling and Storage

Store in a cool, dry place. Do not allow to freeze. Do not smoke or eat in the product handling area. Keep out of the reach of children and animals.

8. Exposure Control/Personal Protection

Ventilation: Local exhaust ventilation is not required. If large quantities are handled indoors, ensure adequate mechanical ventilation.
Respiratory Protection: Not required with adequate ventilation. If ventilation is poor and large quantities are being handled, wear a properly fitted half-face or full-face air-purifying respirator which is approved for pesticides (NIOSH/MSHA in U.S.).
Eye Protection: Safety glasses or chemical goggles.
Gloves: Wear chemical resistant gloves such as Nitrile, Neoprene, or natural rubber gloves.
Other Protective equipment: Not required.

9. Physical Properties

Appearance: Pale amber liquid
Odor: Clove scent
Specific Gravity (water =1): 1.06 ± 0.02

10. Stability and Reactivity

Chemical Stability: Stable
Hazardous Polymerization: Will not occur

11. Toxicological Information

Rat Acute Oral: Not Determined
Rate Dermal: Not Determined
Acute effects from Overexposure: Components of this product have low oral and dermal toxicity. Prolonged contact with the skin may cause
irritation, and contact with the eyes may cause eye irritation. Inhalation of the vapor may cause irritation of nasal passages and/or dizziness. Ingestion of this product could result in irritation of the gastrointestinal tract, headache or nausea.

Chronic Effects from Overexposure: No data are available.
Carcinogenicity: NTP: No OSHA: No

12. Environmental Information

While specific data regarding toxicity to fish or other aquatic organisms is not available for this product, care should always be taken to prevent pesticides from entering aquifers.

13. Disposal

Do not reuse empty container. Triple rinse empty container then puncture container and recycle if possible. If recycling is not possible, triple rinse empty container then puncture container and dispose of container in a sanitary landfill, or incinerator, or if allowed by state and local regulations, by burning. If burned, stay out of smoke.

14. Transportation Information

Ground: Not DOT regulated.

Reportable Quantity: A Reportable Quantity (RQ) has not been established for this material.

15. Regulatory Information

NFPA Ratings: Health - 1 Fire - 2 Reactivity - 0 Special - none

SARA Title III: This product does not contain any ingredients subject to Section 313 (40 CFR 372) reporting requirements.

State of California requires any exempt pesticide product containing 8.5% or more of Clove Oil must at a minimum bear the signal word “Caution”, the phrase “Keep Out of Reach of Children”, appropriate precautionary language, and a requirement for protective eyewear and gloves.