

**PERTINENT ECO-SOLUTIONS, INC.
SAFETY DATA SHEET**

This Safety Data Sheet has been prepared to comply with the US OSHA Hazcom 2012 Standard.

SECTION 1: IDENTIFICATION

Product Identifier:

Trade Name: Vetforce™ Total Insect
SDS Date of Preparation: April 9, 2024; previous version June 10, 2022

Relevant Identified Uses of the Substance or Mixture and Uses Advised Against:

Recommended use: None known
Restrictions on use: None known

Details of the Supplier of the Safety Data Sheet:

Manufacturer: Pertinent Eco-Solutions, Inc.
 2800 Sumner Boulevard, Suite 136
 Raleigh, NC 27616
Information Phone Number: (919) 676-8644

Emergency Telephone Number:

Emergency Spill Information: INFOTRAC: 1-800-535-5053 (North America)
 1-352-323-3500 (International)

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification:

Physical	Health
Not Classified	Eye Damage Category 1 Skin Irritant Category 2 Skin Sensitization Category 1 Specific Target Organ Toxicity Single Exposure Category 3

Label Elements:

Danger!



Hazard Phrases

Causes skin irritation.
 May cause an allergic skin reaction.
 Causes serious eye damage.
 May cause respiratory irritation.

Precautionary Phrases

Avoid breathing mists or vapors.
 Wash thoroughly after handling.
 Use only outdoors or in a well-ventilated area.
 Contaminated work clothing must not be allowed out of the workplace.
 Wear protective gloves, protective clothing, and eye protection.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 Immediately call a POISON CENTER or doctor.
 IF ON SKIN: Wash with plenty of water.
 If skin irritation or rash occurs: Get medical attention.
 Take off contaminated clothing and wash it before reuse.



IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER or doctor if you feel unwell.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Dispose of contents and container in accordance with local and national regulations.

Other Hazards: None known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS#	%
Geraniol	106-24-1	25-35
Ethyl Lactate	97-64-3	10-20
Sodium dodecyl sulphate	151-21-3	5-15
Clove Oil	8000-34-8	<5
Cornmint Oil	68917-18-0	<5

The specific identity and/or exact percentage of composition have been withheld as a trade secret.

SECTION 4: FIRST-AID MEASURES

Description of First Aid Measures:

Eye: Immediately flush eyes thoroughly with large quantities of water for 20 minutes, while holding the eye lids open to be sure the material is washed out. Remove contact lenses if present and easy to do. Get immediate medical attention.

Skin: Remove contaminated clothing. Wash contact area thoroughly with soap and water for several minutes. Get medical attention if irritation or rash occurs. Launder clothing before re-use.

Inhalation: Remove victim to fresh air. If breathing is difficult or irritation persists, get medical attention.

Ingestion: Do not induce vomiting unless directed to do so by medical personnel. Keep the victim calm and warm. Get medical attention if symptoms develop.

Most Important symptoms and effects, both acute and delayed: May cause severe eye irritation with possible eye damage. May cause moderate skin and respiratory tract irritation. May cause skin sensitization.

Indication of any immediate medical attention and special treatment needed: Immediate medical attention is required for eye contact.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable (and Unsuitable) Extinguishing Media: Use any media that is appropriate for the surrounding fire.

Special Hazards Arising from the Chemical: Not classified as flammable or combustible. During a fire, this product may release oxides of carbon and other toxic or irritating compounds.

Special Equipment and Precautions for Fire-Fighters: Wear an approved, positive pressure, self-contained breathing apparatus and full protective clothing. Cool fire exposed containers with water. Contain water used in firefighting from entering sewers or natural waterways.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Avoid contact with eyes, skin, or clothing. Wear appropriate protective clothing to prevent eye and skin contact including impervious gloves, safety goggles and respirator if needed. Avoid breathing mists or vapors. Ventilate area.

Methods and Material for Containment and Cleaning Up:

Cover with an inert absorbent material and collect into an appropriate container for disposal. Avoid releases to the environment. Report spills and releases as required to appropriate authorities.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling: Avoid breathing vapors, aerosols, and mists. Use with adequate ventilation. Avoid contact with the eyes, skin and clothing. Always wear impervious gloves, chemical safety goggles and protective clothing when handling this material. Wash thoroughly after handling. Do not eat, drink, or smoke in the work area. Keep product away from heat and flames. Keep containers closed when not in use.

Conditions for Safe Storage, Including any Incompatibilities: Store in a container in a cool, dry, well-ventilated location away from oxidizers and incompatible materials. Keep container tightly closed when not in use.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical Name	Exposure Limits
Geraniol	None Established
Ethyl Lactate	None Established
Sodium dodecyl sulphate	None Established
Clove Oil	None Established
Cornmint Oil	None Established

Appropriate Engineering Controls: Use with adequate general or local exhaust ventilation to minimize exposures levels.

Personal Protective Equipment:

Respiratory Protection: In operations where exposure levels are excessive, an approved respirator with dust/mist cartridges or supplied air respirator should be used. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations and good Industrial Hygiene practice.

Skin Protection: Impervious gloves are recommended to prevent skin contact. Contact your glove supplier for selection assistance.

Eye Protection: Chemical safety goggles should be worn to prevent eye contact.

Other Protective Equipment: Impervious clothing is required to prevent skin contact and contamination of personal clothing. An eye wash facility and safety shower should be available in the work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colorless liquid	Vapor Pressure: No data available
Odor: Characteristic odor	Vapor Density (air = 1): No data available
Odor Threshold: Not established	Relative Density: No data available
pH: No data available	Solubility(ies): Soluble in water
Melting Point/Freezing Point: 0°C (32°F) (approximate)	Partition coefficient: n-octanol/water: No data available
Boiling Point/Range: 100.3°C (212.5°F) (similar product)	Auto-ignition Temperature: No data available
Flash Point: >100.3°C (>212.5°F) (PMCC) (similar product)	Decomposition Temperature: No data available
Evaporation Rate: No data available	Viscosity: No data available
Flammability (solid, gas): Not applicable	Flammable Limits: LEL: No data available UEL: No data available

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Not reactive

Chemical Stability: Stable under normal storage and handling conditions.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Keep away from heat and open flames.

Incompatible Materials: Strong oxidizing agents, strong acids, and strong bases.



Hazardous Decomposition Products: Thermal decomposition will produce oxides of carbon and other toxic or irritating compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

Potential Health Effects:

- Eye:** May cause severe eye irritation with pain, tearing, and redness. May cause permanent eye damage.
- Skin:** May cause moderate skin irritation. May cause an allergic skin reaction (sensitization).
- Inhalation:** Inhalation of mists or vapors may cause moderate nose and upper respiratory tract irritation.
- Ingestion:** Swallowing may cause gastrointestinal irritation, nausea, vomiting, and diarrhea.
- Chronic Hazards:** None known.

Carcinogenicity: None of the components of this product are listed as carcinogens by OSHA, IARC, and NTP.

Acute Toxicity Values:

- Product ATE: >2000 mg/kg (oral), >5000 mg/kg (dermal)
- Geraniol: Oral rat LD50- 3600 mg/kg, Skin rabbit LD50- >5000 mg/kg
- Ethyl Lactate: Oral rat LD50- >2000 mg/kg, Inhalation rat LC50- >5.4 mg/L/4hr
- Sodium dodecyl sulphate: Oral rat LD50-1200 mg/kg, Skin rabbit LD50->2000 mg/kg
- Clove Oil: Oral rat LD50-2650 mg/kg, Skin rabbit LD50- 2500 mg/kg
- Cornmint Oil: Oral rat LD50-1240 mg/kg
- Pulegone: Oral rat LD50- 470 mg/kg

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:

- Geraniol: 96 hr LC50 Danio rerio- 22 mg/L, 48 hr EC50 Daphnia magna- 10.8 mg/L, 72 hr EC50 Desmodemus subspicatus- 13.1 mg/L
- Ethyl Lactate: 96 hr LC50 Danio rerio- 320 mg/L, 48 hr EC50 Daphnia magna- 683 mg/L
- Sodium dodecyl sulphate: 96 hr LC50 Pimephales promelas- 29 mg/L, 48 hr EC50 Ceriodaphnia dubia- 5.55 mg/L, 42 days NOEC Pimephales promelas- ≥1.357 mg/L
- Cornmint Oil: 96 hr LC50 Fish- 3.01 mg/L(QSAR), 48 hr EC50 Daphnia magna- 2.43 mg/L

This product is expected to be harmful to the aquatic environment with long-term adverse effects. Releases to the environment should be avoided.

Persistence and Degradability: Geraniol and Cornmint Oil are readily biodegradable.

Bioaccumulative Potential: No data available

Mobility in Soil: No data available

Other Adverse Effects: Not applicable

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose in accordance with all local, state and federal regulations.

SECTION 14: TRANSPORTATION INFORMATION

	UN Number	UN Proper Shipping Name	Hazard Class(s)	Packing Group	Environmental Hazards
US DOT	None	Not regulated	None	None	Not applicable
IMDG	None	Not regulated	None	None	Not applicable
IATA/ICAO	None	Not regulated	None	None	Not applicable

Transport in Bulk According to Annex III MARPOL 73/78 and the IBC Code: Not applicable

Special Precautions for User: Not applicable

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

CERCLA 103 Reportable Quantity: This product is not subject to reporting under CERCLA. Some states have more stringent reporting requirements. Report all spills in accordance with local, state, and federal regulations.

SARA TITLE III:

Hazard Category for Section 311/312: See OSHA Hazard Classification in Section 2.

Section 313 Toxic Chemicals: This product contains the following chemicals subject to SARA Title III Section 313 Reporting requirements: None

Section 302 Extremely Hazardous Substances (TPQ): None

EPA Toxic Substances Control Act (TSCA) Status: All the ingredients of this product are listed on the TSCA inventory or exempt.

SECTION 16: OTHER INFORMATION

Date of Current Revision: June 10, 2022

Revision Summary: New SDS

Date of Previous Revision: N/A

=====

This above information is believed to be correct but does not propose to be all inclusive and shall be used only as a guide. Pertinent Eco-Solutions, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.