

**Pertinent Eco-Solutions, Inc.**  
**SAFETY DATA SHEET**

This Safety Data Sheet has been prepared to comply with the EU Regulation No. 1907/2006 and 2020/878, and the US OSHA Hazcom 2012 Standard.

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| <b>SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION<br/>AND THE COMPANY/UNDERTAKING</b> |
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**1.1 Product Identifier:**

**Trade Name:** Vetforce™ Livestock Dust  
**SDS Date of Preparation:** August 12, 2024; previous version January 4, 2023

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

**Recommended use:** None known  
**Restrictions on use:** None known

**1.3 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

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

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| <b>SECTION 2: HAZARDS IDENTIFICATION</b> |
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**2.1 Classification of the Substance or Mixture:**
**GHS Classification:**

| Physical       | Health  | Environment                                |
|----------------|---|--|
| Not Classified | Eye Damage Category 1 (H318)<br>Skin Irritant Category 2 (H315)<br>Skin Sensitization Category 1 (H317) | Aquatic Chronic Toxicity Category 3 (H412) |

**2.2 Label Elements:**

Danger!



Contains: Geraniol, Thyme Oil

**Hazard Phrases**

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|------|--|
| H315 | Causes skin irritation.                            |
| H317 | May cause an allergic skin reaction.               |
| H318 | Causes serious eye damage.                         |
| H412 | Harmful to aquatic life with long lasting effects. |

**Precautionary Phrases**

|        |  |
|--------|--|
| P261   | Avoid breathing dust.  |
| P264   | Wash thoroughly after handling.  |
| P272   | Contaminated work clothing must not be allowed out of the workplace.   |
| P273   | Avoid release to the environment.  |
| P280   | Wear protective gloves, protective clothing, and eye protection.   |
| P305 + | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. |

|             |  |
|-------------|--|
| P351 + P338 | Continue rinsing.  |
| P310        | Immediately call a POISON CENTER or doctor.  |
| P302 + P352 | IF ON SKIN: Wash with plenty of water.   |
| P333 + P313 | If skin irritation or rash occurs: Get medical attention.                            |
| P362 + P364 | Take off contaminated clothing and wash it before reuse.                             |
| P501        | Dispose of contents and container in accordance with local and national regulations. |

**2.3 Other Hazards:** None known.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

**3.2 Mixture:**

| Chemical Name      | CAS#      | EINECS#/REACH Registration# | %     | Classification  | SCL/M-Factor/ATE                                  |
|--------------------|-----------|-----------------------------|-------|---|---|
| Sodium Bicarbonate | 144-55-8  | 205-633-8                   | 75-85 | Substance with a Union workplace exposure limit   | None  |
| Calcium Silicate   | 1344-95-2 | 215-710-8                   | <10   | Substance with a Union workplace exposure limit   | None  |
| Calcium Carbonate  | 471-34-1  | 207-439-9                   | <10   | Substance with a Union workplace exposure limit   | None  |
| Thyme Oil          | 8007-46-3 | 616-910-1                   | <5    | Eye Dam. 1 (H318), Skin Irrit. 2 (H315), Skin Sens. 1B (H317), Asp. Tox. 1 (H304), Aquatic Chronic 2 (H411) | ATE (oral): 2840 mg/kg, ATE (dermal): >5000 mg/kg |
| Geraniol           | 106-24-1  | 203-377-1                   | <5    | Eye Dam. 1 (H318), Skin Irrit. 2 (H315), Skin Sens. 1 (H317)  | ATE (oral): 3600 mg/kg, ATE (dermal): >5000 mg/kg |

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

See Section 16 for further information on GHS Classification.

### SECTION 4: FIRST AID MEASURES

**4.1 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.

**4.2 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.

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

### SECTION 5: FIRE-FIGHTING MEASURES

**5.1 Extinguishing Media:** Use any media that is appropriate for the surrounding fire.

## 5.2 Special Hazards Arising from the Substance or Mixture:

**Unusual Fire and Explosion Hazards:** Not classified as flammable or combustible.

**Combustion Products:** Oxides of carbon, calcium, and other irritating compounds.

## 5.3 Advice 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

## 6.1 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 generating or breathing air-borne dust. Ventilate area. Powders that become wet may cause surfaces to be extremely slippery and present a slip hazard.

## 6.2 Environmental Precautions:

Avoid releases to the environment. Report spills and releases as required to appropriate authorities.

## 6.3 Methods and Material for Containment and Cleaning Up:

Scoop or shovel up using methods that minimize the generation of airborne dust. Dust deposits should not be allowed to accumulate on surfaces. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Place dry material into an appropriate container for disposal. Wipe spill area with a damp cloth.

## 6.4 Reference to Other Sections:

Refer to Section 8 for Personal Protective Equipment and Section 13 for Disposal information.

# SECTION 7: HANDLING AND STORAGE

**7.1 Precautions for Safe Handling:** Avoid breathing dust. 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. Follow good housekeeping practices to keep surfaces, including areas overhead such as piping, drop ceilings, ductwork, etc. free from settled dust. Keep containers closed when not in use.

**7.2 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.

**7.3 Specific end use(s):** None known.

# SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

## 8.1 Control Parameters:

| Chemical Name                | Exposure Limits   |
|------------------------------|---|
| Sodium Bicarbonate (as PNOC) | 5 mg/m <sup>3</sup> (respirable fraction), 15 mg/m <sup>3</sup> (total dust) TWA OSHA PEL<br>4 mg/m <sup>3</sup> TWA DFG MAK (as dust, general threshold limit value, inhalable fraction)             |
| Calcium Silicate             | 5 mg/m <sup>3</sup> (respirable fraction), 15 mg/m <sup>3</sup> (total dust) TWA OSHA PEL<br>10 mg/m <sup>3</sup> TWA Belgium OEL<br>10 mg/3 (inhalable), 4 mg/m <sup>3</sup> (respirable) TWA UK WEL |
| Calcium Carbonate            | 5 mg/m <sup>3</sup> (respirable fraction), 15 mg/m <sup>3</sup> (total dust) TWA OSHA PEL<br>10 mg/3 (inhalable), 4 mg/m <sup>3</sup> (respirable) TWA UK WEL   |
| Thyme Oil                    | None Established  |
| Geraniol                     | None Established  |

## 8.2 Exposure Controls:

**Ventilation:** Use with adequate general or local exhaust ventilation to maintain exposure levels below the occupational exposure limits.

**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. In Europe follow EN 149.

**Skin Protection:** Impervious gloves are recommended to prevent skin contact. Contact your glove supplier for selection assistance. In Europe follow EN 374.

**Eye Protection:** Chemical safety goggles should be worn to prevent eye contact. In Europe follow EN 166.

**Other Protective Equipment:** Impervious clothing is required to prevent skin contact and contamination of personal clothing. In Europe follow EN 13034. An eye wash facility and safety shower should be available in the work area.

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| <b>SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES</b> |
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**9.1 Information on basic Physical and Chemical Properties:**

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| <b>Physical State:</b> Solid   | <b>pH:</b> Not applicable                                     |
| <b>Color:</b> White  | <b>Kinematic Viscosity:</b> Not applicable                    |
| <b>Odor:</b> Characteristic odor   | <b>Solubility:</b> No data available                          |
| <b>Melting point/freezing point:</b> No data available                     | <b>Partition coefficient: n-octanol/water:</b> Not applicable |
| <b>Boiling Point/Range:</b> Not applicable                                 | <b>Vapor pressure:</b> Not applicable                         |
| <b>Flammability (gas, liquid, solid):</b> Not applicable                   | <b>Relative Density:</b> No data available                    |
| <b>Flammable Limits: LEL:</b> Not applicable<br><b>UEL:</b> Not applicable | <b>Relative vapor pressure:</b> Not applicable                |
| <b>Flash point:</b> Not applicable   | <b>Particle Characteristics:</b> No data available            |
| <b>Auto-ignition temperature:</b> Not applicable                           | <b>Decomposition temperature:</b> No data available           |

**9.2.1 Information with regard to physical hazard classes:** Not applicable

**9.2.2 Other Safety Characteristics:** Not applicable

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| <b>SECTION 10: STABILITY AND REACTIVITY</b> |
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**10.1 Reactivity:** Not reactive

**10.2 Chemical Stability:** Stable under normal storage and handling conditions.

**10.3 Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.

**10.4 Conditions to Avoid:** Keep away from heat and open flames. Avoid hygroscopic conditions and dust formation.

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

**10.6 Hazardous Decomposition Products:** Thermal decomposition will produce oxides of carbon, calcium, and other irritating compounds.

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| <b>SECTION 11: TOXICOLOGICAL INFORMATION</b> |
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**11.1 Information on Toxicological Effects:****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 dust may cause nose and upper respiratory tract irritation.

**Ingestion:** Swallowing may cause gastrointestinal irritation, nausea, vomiting, and diarrhea.

**Chronic Hazards:** None known

**Acute Toxicity Values:**

Product ATE: >2000 mg/kg (oral), >5000 mg/kg (dermal)

Sodium Bicarbonate: Oral rat LD50- >4000 mg/kg, Inhalation rat LC50- >4.74 mg/L/4.5hr

Calcium Silicate: Oral rat LD50- >5000 mg/kg, Inhalation rat LC50->2.08 mg/L/4hr, Skin rabbit LD50- >5000 mg/kg

Calcium Carbonate: Oral rat LD50->2000 mg/kg, Inhalation rat LC50- >3 mg/L/4hr, Skin rat LD50- >2000 mg/kg  
Thyme Oil: Oral rat LD50- 2840 mg/kg, Skin rabbit LD50- >5000 mg/kg  
Geraniol: Oral rat LD50- 3600 mg/kg, Skin rabbit LD50- >5000 mg/kg

**Skin corrosion/irritation:** This product is expected to be irritating to skin based on the ingredients.

**Eye damage/irritation:** This product is expected to be corrosive to eyes based on the ingredients.

**Respiratory Irritation:** Based on available data, the classification criteria are not met.

**Respiratory Sensitization:** Based on available data, the classification criteria are not met.

**Skin Sensitization:** Based on the ingredients in this product, this product is expected to cause skin sensitization.

**Germ Cell Mutagenicity:** Based on available data, the classification criteria are not met.

**Carcinogenicity:** None of the components of this product above 0.1% are listed as carcinogens by OSHA, IARC, NTP, and the EU CLP.

**Reproductive Toxicity:** Based on available data, the classification criteria are not met.

**Specific Target Organ Toxicity:**

Single Exposure: Based on available data, the classification criteria are not met.

Repeat Exposure: Based on available data, the classification criteria are not met.

**Aspiration Hazard:** Based on available data, the classification criteria are not met.

**11.2 Information on other hazards:** Not applicable

**11.2.1 Endocrine disrupting properties:** Not applicable

**11.2.2: Other information:** Not applicable

## SECTION 12: ECOLOGICAL INFORMATION

**12.1 Toxicity:**

Geraniol: 96 hr LC50 Danio rerio- 22 mg/L, 48 hr EC50 Daphnia magna- 10.8 mg/L, 72 hr EC50 Desmodesmus subspicatus- 13.1 mg/L

Thyme Oil: 96 hr LC50 Fathead minnow- 3.2 mg/L, 48 hr LC50 Daphnia magna- 3.2 mg/L, 72 hr NOEC Algae- 1.9 mg/L, 21 days NEOC Daphnia magna- 2.0 mg/L

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

**12.2 Persistence and Degradability:** Biodegradation is not applicable to inorganic compounds. Geraniol and Thyme oil are readily biodegradable.

**12.3 Bioaccumulative Potential:** No data available

**12.4 Mobility in Soil:** No data available

**12.5 Results of PBT and vPvB Assessment:** No data available

**12.6 Endocrine Disrupting Properties:** Not applicable

**12.7 Other Adverse Effects:** Not applicable

**SECTION 13: DISPOSAL CONSIDERATIONS**

**13.1 Waste Treatment Methods:** Dispose in accordance with all local, state, and federal regulations.

**SECTION 14: TRANSPORTATION INFORMATION**

|                   | <b>14.1 UN Number</b> | <b>14.2 UN Proper Shipping Name</b> | <b>14.3 Hazard Class(s)</b> | <b>14.4 Packing Group</b> | <b>14.5 Environmental Hazards</b> |
|-------------------|-----------------------|-------------------------------------|-----------------------------|---------------------------|-----------------------------------|
| <b>US DOT</b>     | None                  | Not regulated                       | None                        | None                      | Not applicable                    |
| <b>EU ADR/RID</b> | None                  | Not regulated                       | None                        | None                      | Not applicable                    |
| <b>IMDG</b>       | None                  | Not regulated                       | None                        | None                      | Not applicable                    |
| <b>IATA/ICAO</b>  | None                  | Not regulated                       | None                        | None                      | Not applicable                    |

**14.6 Special Precautions for User:** Not applicable

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

**SECTION 15: REGULATORY INFORMATION**

**15.1 Safety, Health and Environment Regulations/Legislation Specific for the Substance or Mixture:**

**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.

**EUROPEAN REGULATIONS**

**REACH:** These products comply with REACH regulation as applicable. For more information, contact Pertinent Eco-Solutions, Inc.

**SVHC:** This product contains the following Substances of Very High Concern (SVHCs): None.

**15.2 Chemical Safety Assessment:** No data available

**SECTION 16: OTHER INFORMATION**

**Date of Current Revision:** July 20, 2021

**Revision Summary:** New SDS

**Date of Previous Revision:** N/A

**GHS Classification for Reference (See Sections 3):**

Aquatic Chronic 2 Aquatic Chronic Toxicity Category 2

Aquatic Chronic 3 Aquatic Chronic Toxicity Category 3

Asp. Tox. 1 Aspiration Toxicity Category 1

Eye Dam. 1 Eye Damage Category 1  
Eye Irrit. 2 Eye Irritant Category 2  
Skin Irrit. 2 Skin Irritant Category 2  
Skin Sens. 1 Skin Sensitizer Category 1  
H304 May be fatal if swallowed and enters airways.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H319 Causes serious eye irritation.  
H411 Toxic to aquatic life with long lasting effects.  
H412 Harmful to aquatic life with long lasting effects.

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= 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.