SECTION 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product Name: Clove Leaf Essential Oil
    Product Code: 302-506X

1.2 Intended Use: Compound used in customer substance/mixture/product.

1.3 Supplier: Majestic Mountain Sage Inc
    2490 S 1350 W
    Nibley, 84321 - United States of America
    T 435.755.0863 - F 435.755.2108
    www.TheSage.com

1.4 Emergency Telephone Number
    No additional information available

SECTION 2: Hazards Identification

2.1 Classification of the Substance or Mixture
    - Serious eye damage/eye irritation: Category 2A
    - Flammable liquids: Category 4

2.2 GHS Label Elements, Including Precautionary Statements

    Emergency Overview
    Signal Word: Warning

    Hazard Statements:
    Causes serious eye irritation
    Combustible liquid

    Appearance: clear    Physical State: liquid    Odor: clove

    IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. If eye irritation persists get medical advice/attention.
    In case of fire: Use CO₂, dry chemical, or foam for extinction.
2.3 Precautionary Statements

**Storage:** Store in a well-ventilated place. Keep cool.

**Disposal:** Dispose of contents/container to an approved waste disposal plant.

2.4 Hazards Not Otherwise Classified (HNOC) and Other Information

May be harmful if swallowed
Toxic to aquatic life

### SECTION 3: Composition/Information on Ingredients

#### 3.1 Substances

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Cas No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eugenol</td>
<td>97-53-0</td>
<td>50-90%</td>
</tr>
</tbody>
</table>

### SECTION 4: First Aid Measures

#### 4.1 Description of First Aid Measures

**General Advice:** If symptoms persist, call a physician.

**Eye Contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. After initial flushing remove any contact lenses and continue flushing for at least 15 minutes with eyes wide open. If symptoms persist, call a physician.

**Skin Contact:** Immediately wash off with soap and water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

**Ingestion:** Do NOT induce vomiting. Rinse mouth with water and afterwards, drink plenty of water. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

**Inhalation:** Move to fresh air in case of accidental inhalation of vapors. If symptoms persist, call a physician.
Self Protection of the First Aider: Use personal protective equipment.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed

Main Symptoms: Hives

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed

Note to Physicians: Treat symptomatically. May cause sensitization in susceptible people.

SECTION 5: Firefighting Measures

5.1 Extinguishing Media

Suitable: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable: Decomposition by contact with water may generate vapors which can be ignited by heat or open flame.

5.2 Special Hazards Arising from the Substance or Mixture

Thermal decomposition can lead to release of irritating gases and vapors. In the even of fire and/or explosion do not breath fumes. May cause sensitization in susceptible persons.

Explosion Data:
Sensitivity to Mechanical Impact: None
Sensitivity to Static Discharge: Yes

5.3 Protective Equipment and Precautions for Firefighters

As in any fire, wear a self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

SECTION 6: Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

Use personal protective equipment. Avoid contact with eyes and skin. Evacuate personnel to safe areas. Keep people away from upwind of spill/leak.
6.2 Environmental Precautions
Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product form entering drains.

6.3 Methods and Material for Containment and Cleaning Up

Containment: Prevent further leakage or spillage if safe to do so.

Cleaning Up: Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. After cleaning, flush away traces with water. Prevent product from entering drains. Dam up.

SECTION 7: Handling and Storage

7.1 Precautions for Safe Handling
Ensure adequate ventilation. Use personal protective equipment as required. Use only in area provided with appropriate exhaust ventilation. Do not breathe dust/fume/gas/mist/vapors/spray.

7.2 Conditions for Safe Storage, Including Any Incompatibilities

Incompatible Products: None known based on information supplied.

SECTION 8: Exposure Controls/Personal Protection

8.1 Control Parameters

Exposure Limits: This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulating bodies.

8.2 Exposure Controls

Engineering Controls: Shower, Eyewash stations, Ventilation systems.

8.3 Personal Protective Equipment

Eye/Face Protection: Tightly fitting safety goggles and face-shield.
**Skin/Body Protection:** Chemical resistant apron.

**Respiratory Protection:** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection must be worn. Positive-pressure supplied air respirator may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**General Hygiene Considerations:** When using, do not eat, drink or smoke. Wash contaminated clothing before reuse. Provide regular cleaning of equipment, work area, and clothing.

---

### SECTION 9: Physical and Chemical Properties

#### 9.1 Information on Basic Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State:</td>
<td>Liquid</td>
</tr>
<tr>
<td>Odor:</td>
<td>Clove</td>
</tr>
<tr>
<td>Appearance:</td>
<td>Clear</td>
</tr>
<tr>
<td>Color:</td>
<td>Colorless to pale yellow</td>
</tr>
<tr>
<td>pH:</td>
<td>No information available</td>
</tr>
<tr>
<td>Melting/Freezing Point (FCC Method):</td>
<td>No information available</td>
</tr>
<tr>
<td>Boiling Point/Boiling Range (FCC Method):</td>
<td>No information available</td>
</tr>
<tr>
<td>Flash Point (Closed Cup):</td>
<td>93°C/200°F</td>
</tr>
<tr>
<td>Evaporation Rate:</td>
<td>No information available</td>
</tr>
<tr>
<td>Flammability (solid, gas):</td>
<td>No information available</td>
</tr>
<tr>
<td>Flammability Limits in Air:</td>
<td>No information available</td>
</tr>
<tr>
<td>Upper Flammability Limit:</td>
<td>No information available</td>
</tr>
<tr>
<td>Lower Flammability Limit:</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor Pressure mm Hg 20°C:</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor Density:</td>
<td>No information available</td>
</tr>
<tr>
<td>Specific Gravity @ 25°C (FCC Method):</td>
<td>1.036 - 1.046</td>
</tr>
<tr>
<td>Specific Gravity @ 20°C (FCC Method):</td>
<td>1.039 - 1.049</td>
</tr>
<tr>
<td>Refractive Index (FCC Method):</td>
<td>1.531 - 1.535</td>
</tr>
<tr>
<td>Water Solubility:</td>
<td>Practically insoluble</td>
</tr>
<tr>
<td>Partition Coefficient n-octanol/water:</td>
<td>No information available</td>
</tr>
<tr>
<td>Autoignition Temperature:</td>
<td>No information available</td>
</tr>
<tr>
<td>Decomposition Temperature:</td>
<td>No information available</td>
</tr>
<tr>
<td>Viscosity, Dynamic:</td>
<td>No information available</td>
</tr>
</tbody>
</table>
SECTION 10: Stability and Reactivity

10.1 Reactivity
No information available

10.2 Chemical Stability
Stable under recommended storage conditions.

10.3 Possibility of Hazardous Reactions
None under normal processing.

10.4 Conditions to Avoid
Extremes of temperature and direct sunlight.

10.5 Incompatible Materials
None known based on information supplied.

10.6 Hazardous Decomposition Products
Non known based on information supplied.

SECTION 11: Toxicological Information

11.1 Information on Likely Routes of Exposure

Product Information:  Product does not present an acute toxicity hazard based on known information.

Inhalation:  There is no data available for this product

Eye Contact:  There is no data available for this product
Skin Contact: There is no data available for this product

Ingestion: There is no data available for this product

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eugenol 97-53-0</td>
<td>1930 mg/kg (Rat)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

11.2 Information on Toxicological Effects

Symptoms: No information available

11.3 Delayed and Immediate Effects as Well as Chronic Effects from Short and Long-term Exposure

Sensitization: No information available

Germ Cell Mutagenicity: No information available

Carcinogenicity: This product contains one or more substances which are classified by IARC as carcinogenic to humans (Group I), probably carcinogenic to humans (Group 2A) or possibly carcinogenic to humans (Group 2B).

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACHGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eugenol 97-53-0</td>
<td></td>
<td>Group 3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

IARC (International Agency for Research on Cancer)
Group 3 - Not classifiable as carcinogenic to humans.

Reproductive Toxicity: No information available

Specific Target Organ Systemic Toxicity (Single Exposure): No information available

Specific Target Organ Systemic Toxicity (Repeated Exposure): No information available

Chronic Toxicity: Repeated contact may cause allergic reactions in very susceptible persons. Avoid repeated exposure.
11.4 Numerical Measure of Toxicity - Product Information

The following values are calculated based on Chapter 3.1 of the GHS document: mg/kg

12.1 Ecotoxicity
15% of the mixture consists of component(s) of unknown hazards to the aquatic environment.

12.2 Persistence and Degradability
No information available

12.3 Bioaccumulative Potential
No information available

12.4 Other Adverse Effects
No information available

13.1 Waste Treatment Methods

Waste Disposal Methods: It must undergo special treatment, e.g. at suitable disposal site, to comply with local regulations

Contaminated Packaging: Do not reuse container.
SECTION 15: Regulatory Information

15.1 International Inventories

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Complies</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td></td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td></td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td></td>
</tr>
<tr>
<td>PICCS</td>
<td></td>
</tr>
<tr>
<td>ENCS</td>
<td></td>
</tr>
<tr>
<td>IECSC</td>
<td></td>
</tr>
<tr>
<td>AICS</td>
<td></td>
</tr>
<tr>
<td>KECL</td>
<td></td>
</tr>
</tbody>
</table>

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
PICCS - Phillipines Inventory of Chemicals and Chemical Substances
ENCS - China Inventory of Existing Chemical Substances
AICS - Australian Inventory of Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances

15.2 U.S. Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Yes/No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Health Hazard</td>
<td>Yes</td>
</tr>
<tr>
<td>Chronic Health Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>Yes</td>
</tr>
<tr>
<td>Sudden Release of Pressure Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td>No</td>
</tr>
</tbody>
</table>

Clean Water Act
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).
**CERCLA**
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific requirements at the local, regional, or state level pertaining to released of this material.

15.3 U.S. State Regulations

**California Proposition 65**
This product is not, to the best of our knowledge, subject to the labeling requirements under California Proposition 65.

**U.S. State Right-to-Know Regulations**
No information available

**U.S. EPA Label Information**
No information available

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**SECTION 16: Other Information**

16.1 NFPA Rating

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard:</td>
<td>2</td>
</tr>
<tr>
<td>Flammability:</td>
<td>2</td>
</tr>
<tr>
<td>Instability:</td>
<td>0</td>
</tr>
<tr>
<td>Physical and Chemical Hazards:</td>
<td>*</td>
</tr>
</tbody>
</table>

16.2 HMIS Rating

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard:</td>
<td>2</td>
</tr>
<tr>
<td>Flammability:</td>
<td>2</td>
</tr>
<tr>
<td>Physical Hazard:</td>
<td>0</td>
</tr>
<tr>
<td>Personal Protection:</td>
<td>B</td>
</tr>
</tbody>
</table>

**WARNING/DISCLAIMER:**
This ingredient(s) has not been tested, nor has it been deemed safe, for inhalation or use in electronic smoking devices, electronic nicotine delivery systems, electronic cigarettes or other similar devices (collectively “E-Cigarettes”). In supplying this ingredient, Majestic Mountain Sage instructs, and by receiving the ingredient recipient confirms, that this ingredient will not be used in connection with the manufacture and distribution of E-Cigarettes or any component thereof.
Notes:
This safety data sheet is based on the properties of the material known at the time the data sheet was issued. The safety data sheet is intended to provide information for a health and safety assessment of the material and the circumstances, under which it is packaged, stored or applied in the workplace. For such a safety assessment holds no responsibility. This document is not intended for quality assurance purposes.