# SAFETY DATA SHEET

## 1. IDENTIFICATION OF THE SUBSTANCE/ MIXTURE AND OF THE COMPANY / UNDERTAKING

### 1.1 Product Identifiers

<table>
<thead>
<tr>
<th>Product Code</th>
<th>1033</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Name</td>
<td>CLOVE LEAF OIL</td>
</tr>
<tr>
<td>CAS No.</td>
<td>8000-34-8</td>
</tr>
<tr>
<td>Index No.</td>
<td>N/A</td>
</tr>
<tr>
<td>CLP Reference No.</td>
<td>02-2119667717-23-0000</td>
</tr>
<tr>
<td>REACH Pre-Registration No.</td>
<td>---</td>
</tr>
<tr>
<td>EC No.</td>
<td>284-638-7</td>
</tr>
<tr>
<td>FEMA No.</td>
<td>2325</td>
</tr>
</tbody>
</table>

### 1.2 Use

Use in Flavour / Food Application.

### 1.3 Company / Undertaking Identification

Ultra International B.V.
Malledijk 3H, 3208 LA Spijkenisse, (Loods 12-15), Netherlands
Tel: +3161 8431850    Fax: +91 - 9810008844
E-mail: ultraintl.nl@gmail.com    * www.ultrainternational.com

### 1.4 Emergency Telephone

+91 - 9810008844

## 2. HAZARD IDENTIFICATION

### 2.1 Classification of the substance / preparation

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS classification]

<table>
<thead>
<tr>
<th>HAZARD CATEGORY</th>
<th>HAZARD STATEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aspiration hazard 1</td>
<td>H304 MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS</td>
</tr>
<tr>
<td>Skin corrosion/irritation 3</td>
<td>H316 CAUSES MILD SKIN IRRITATION</td>
</tr>
<tr>
<td>Skin sensitization 1</td>
<td>H317 MAY CAUSE AN ALLERGIC SKIN REACTION</td>
</tr>
<tr>
<td>Acute toxicity, oral 5</td>
<td>H303 MAY BE HARMFUL IF SWALLOWED</td>
</tr>
<tr>
<td>Serious eye damage 2A</td>
<td>H319 CAUSES SERIOUS EYE IRRITATION</td>
</tr>
<tr>
<td>Aquatic Acute 2</td>
<td>H401 TOXIC TO AQUATIC LIFE</td>
</tr>
</tbody>
</table>

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

| R36 | IRITATING TO EYES |
| R43 | MAY CAUSE SENSITIZATION BY SKIN CONTACT |
| R65 | HARMFUL: MAY CAUSE LUNG DAMAGE IF SWALLOWED |

### 2.2 Label Elements

Label elements according to Regulation (EC) No. 1272/2008 (Substance)/Directive 67/548/EEC

**Hazard Pictogram / Symbol:**

- GHS 07
- GHS 08

**Signal word / Indication(s) of danger:**

Danger

**Hazard Pictogram / Symbol:**

- Xn Harmful

**Hazard Statements**

- H317 MAY CAUSE AN ALLERGIC SKIN REACTION
- H303 MAY BE HARMFUL IF SWALLOWED
- H319 CAUSES SERIOUS EYE IRRITATION
- H304 MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS
- H401 TOXIC TO AQUATIC LIFE
3. COMPOSITION / INFORMATION OF INGREDIENTS

<table>
<thead>
<tr>
<th>Substance Name</th>
<th>CLOVE LEAF OIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substance Description</td>
<td>This product is 100% essential oil.</td>
</tr>
<tr>
<td>CAS No.</td>
<td>8000-34-8</td>
</tr>
<tr>
<td>EC No.</td>
<td>286-638-7</td>
</tr>
<tr>
<td>Botanical Name</td>
<td>Eugenia caryphyllus</td>
</tr>
<tr>
<td>Stabilizers</td>
<td>N/A</td>
</tr>
<tr>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Synonyms</td>
<td>Eugenia caryphyllus Leaf Oil</td>
</tr>
<tr>
<td></td>
<td>Clove Leaf oil</td>
</tr>
<tr>
<td>Index No.</td>
<td>N/A</td>
</tr>
<tr>
<td>CLP Reference No.</td>
<td>02-211967717-23-000</td>
</tr>
<tr>
<td>REACH Pre-Registration No.</td>
<td>--</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

4.1 Description of First Aid Measures

- **Eye Contact**: Remove contact lenses if worn. Flush immediately with plenty of water.
- **Skin Contact**: Remove contaminated clothing. Wash affected area with mild soap and water.
- **Inhalation**: Remove affected person to fresh air. If discomfort persists, consult physician.
- **Swallowing**: Seek immediate medical care.

4.2 Indication of any immediate medical attention and special treatment method

If swallowed: Immediately call a POISON CENTER or Doctor/Physician.

If on skin (or hair): Remove and take off immediately all contaminated clothing. Rinse skin with water/shower.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing Media

- **Suitable**: Carbon Dioxide; Dry Chemical; Universal Type Foam.
- **Unsuitable**: Water spray; others not established.

5.2 Special hazards arising from substance

Combustible liquid Possibility of development of hazardous gases or vapors in event of fire Following may develop: CO and CO2

5.3 Advice for firefighters

Do not stay in dangerous zone without self protective clothing and breathing apparatus Spray extinguishing media directly into base of fire Cool containers exposed to flame with water Prevent fire fighting water entering surface water or ground water.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, protective equipment and emergency procedures

Wear personal protective clothing. Keep away unprotected individuals. Eliminate source of ignition. Keep area well ventilated and isolate the spill.

6.2 Environmental precautions

Prevent entry into drains, ground/surface water or sewerage system.

6.3 Methods and material for containment and cleaning up

Pick up with absorbents material (Sand) or with pump for large spills.

6.4 Reference to other sections

Refer to Section 7, 8 & 13
7. HANDLING AND STORAGE

7.1 Precautions for safe handling

- Measures to prevent fire
  - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
  - Use explosion proof electrical/ ventilating/lighting/equipment etc.
- Measures to prevent aerosols and dust generation
  - Ensure good ventilation at workplaces
- Measures to protect the environment
  - Prevent entry into drains, ground/surface water or sewerage system.

General Occupational hygiene

Wear protective gloves/protective clothing/eye protection/face protection. Take off contaminated clothing and wash before reuse.

7.2 Conditions for safe use, including any incompatibilities

Information on storage conditions

- Should be stored in cool, dark, dry, well ventilated places in full, tightly sealed containers protected from light & source of ignition

Information on packing materials

- Should be packed in Aluminium, HDPE Food Grade Cans, MS Coated Drums, and GI Drums, Avoid long contact with Iron

Requirements for storage rooms and vessels

- Should be stored in suitable containers (lines inside) e.g. MS Coated Drums, GI Drums etc. No special requirement for storage rooms.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Appropriate engineering controls

Engineering controls should be used as the primary means to control exposures

8.2 Personal protective equipments

<table>
<thead>
<tr>
<th>Skin protection</th>
<th>Eye protection</th>
<th>Body protection</th>
<th>Respiratory protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety gloves</td>
<td>tight safety goggles</td>
<td>Protective clothing</td>
<td>Dust mask</td>
</tr>
</tbody>
</table>

8.3 Environmental exposure controls

Prevent entry into drains, ground/surface water or sewerage system.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid</td>
</tr>
<tr>
<td>-physical state</td>
<td></td>
</tr>
<tr>
<td>-colour</td>
<td>Pale yellow to greenish yellow</td>
</tr>
<tr>
<td>Odour</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>Medium</td>
</tr>
<tr>
<td>pH</td>
<td>N/A</td>
</tr>
<tr>
<td>Melting Point °C</td>
<td>N/A</td>
</tr>
<tr>
<td>Boiling Point °C</td>
<td>N/A</td>
</tr>
<tr>
<td>Flash Point (Closed Cup) °C</td>
<td>&gt;93.33 °C</td>
</tr>
<tr>
<td>Vapour Pressure</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapour Density</td>
<td>N/A</td>
</tr>
<tr>
<td>Specific Gravity /Relative Density</td>
<td>1.025 – 1.046 @25°C</td>
</tr>
<tr>
<td>Refractive Index</td>
<td>1.525 – 1.535 @20°C</td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>N/A</td>
</tr>
<tr>
<td>Surface tension</td>
<td>N/A</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble</td>
</tr>
<tr>
<td>-Water</td>
<td></td>
</tr>
<tr>
<td>-Alcohol</td>
<td>1:2.70% alcohol</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not estimated</td>
</tr>
</tbody>
</table>
Explosive Limits
- Lower Explosion Limit: N/A
- Upper Explosion Limit: N/A
Auto Ignition Temperature: N/A
Flammability: N/A
Granulometry: N/A
Oxidising Properties: N/A

10. STABILITY AND REACTIVITY

10.1 Reactivity
Not reactive, stable at room temperature.

10.2 Chemical stability
Stable

10.3 Possibility of hazardous reactions
Reactions with strong oxidizers

10.4 Conditions to avoid
No decomposition if stored and handled properly

10.5 Incompatible materials
Avoid strong acids, strong bases, and all oxidising agents

10.6 Hazardous decomposition products
No dangerous decomposition products expected by intended use.

11. TOXICOLOGICAL INFORMATION

11.1 Acute toxicity oral (LD50) 1.37 gm/kg
11.2 Acute toxicity inhalation Not Determined
11.3 Acute toxicity dermal 1.20 gm/kg
11.4 Skin Irritation/Corrosion Not determined
11.5 Respiratory sensitization Not Determined
11.6 CMR Effects
   - Carcinogenicity: N/A
   - Mutagenicity: N/A
   - Toxic to reproduction: N/A
11.7 Eye Irritation / Corrosion Not Determined
11.8 Exposure limits
   There is a blanket recommendation of 10 mg/m³ for inspirable dusts or mists when limits have not otherwise been established.

12. ECOLOGICAL INFORMATION

12.1 Toxicity
   - PNEC: Not determined
   - NOAEL: Not determined
   - EC50 (48hrs): Not determined
12.2 Persistence and degradability: Readily biodegradable in water
12.3 Mobility in Soil: Low mobility
12.4 Results of PBT and vPvB assessment
   N/A

13. DISPOSAL CONSIDERATION

13.1 Waste treatment methods
   - Product/packaging disposal
     Handle in accordance with official provisions
   - Waste treatment options
     Recycling is preferred to disposal or burning
     - Waste code: Not determined
     - Waste designations according to EWC/AVV
       15 02 02*: absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances
     - Recycle is preferred to disposal or burning
       - Waste code: Not determined
       - Waste designations according to EWC/AVV
         15 02 02*: absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances

13.2 Recommendations
   - Empty contaminated packing thoroughly as they may be recycled
   - Moisten solids to be disposed of adhering to necessary technical regulations after consulting concerned authorities

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14. TRANSPORT INFORMATION

14.1 Land Transport (ADR/RID/GGVSE)
UN Number: Not regulated
DG Class: N/A
Packing Group: N/A
Proper Shipping Name: N/A
Classification Code: N/A
Hazard label(s): N/A

14.2 Sea Transport (IMDG-Code/GGVSee)
UN Number: Not regulated
DG Class: N/A
Packing Group: N/A
Proper Shipping Name: N/A
Marine Pollutant: N/A
Hazard label(s): N/A

14.3 Air Transport (ICAO-IAT/DGR)
UN Number: Not regulated
DG Class: N/A
Packing Group: N/A
Proper Shipping Name: N/A

14.4 Special precautions for users
Wear protective gloves/protective clothing/eye protection/face protection. Take off contaminated clothing and wash before reuse. Prevent entry into drains, ground/surface water or sewerage system.

14.5 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:
N/A

14.6 Other Information
Custom Tariff Code: 3301 29 2100
EmS Code: -

15. REGULATORY INFORMATION

EU regulations:
The product has been classified and labelled according to criteria provided in Directive 67/548/EEC and 1272/2008/EC, and following the recommendations of EFFA (European Flavor and Fragrance Association).
Other Regulations: German Regulation (VwVws)
Water Hazard Class: WGK 3

16. OTHER INFORMATION

16.1 Changes to previous version
Changes applicable according to regulation (EC) No 1907/2006 (REACH)

16.2 Abbreviations and acronyms
GHS: Globally Harmonized System of Classification and labeling of Chemicals
CAS: Chemical abstract Service (division of American Chemical society)
CLP: Classification, Labelling and Packaging
LD50: Lethal concentration, 50 percent
EC50: Effective concentration
PNEC: Predicted No Effect Concentration
NOAEL: No Observed Adverse Effect Levels
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
RID: Regulations Concerning the International Transport of Dangerous Goods by Rail
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the International Air Transport Association (IATA)
ICAO: International Civil Aviation Organization

16.3 Wording of relevant hazard statement and/or precautionary statements referred to in section 2 to 15
Hazard Codes
Xn HARMFUL
Histogram

SAFETY DATA SHEET
(According to Regulation (EC) No. 1907/2006 (REACH))

1033 CLOVE LEAF OIL

Risk Phrases
R 36 IRRITATING TO EYES
R 43 MAY CAUSE SENSITIZATION BY SKIN CONTACT.
R 65 HARMFUL; MAY CAUSE LUNG DAMAGE IF SWALLOWED

Safety Phrases
S24 AVOID CONTACT WITH SKIN
S37 WEAR SUITABLE GLOVES
S62 IF SWALLOWED, DO NOT INDUCE VOMITTING; SEEK MEDICAL ADVICE IMMEDIATELY AND SHOW THIS CONTAINER OR LABEL.

Hazard Statements
H303 MAY BE HARMFUL IF SWALLOWED
H304 MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS
H316 CAUSES MILD SKIN IRRITATION
H317 MAY CAUSE AN ALLERGIC SKIN REACTION
H319 CAUSES SERIOUS EYE IRRITATION
H401 TOXIC TO AQUATIC LIFE

Precautionary Statements
P261 AVOID BREATHING DUST/FUME/GAS/MIST/VAPOURS/SPRAY
P264 WASH ... (HANDS/FACE) THOROUGHLY AFTER HANDLING
P273 AVOID RELEASE TO THE ENVIRONMENT
P280 WEAR PROTECTIVE GLOVES/PROTECTIVE CLOTHING/EYE PROTECTION FACE PROTECTION
P301+310 IF SWALLOWED: IMMEDIATELY CALL A POISON CENTER OR DOCTOR/PHYSICIAN
P305+351+338 IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO.
CONTINUE RINSING
P331 DO NOT INDUCE VOMITTING
P333+313 IF SKIN IRRITATION OR RASH OCCURS: GET MEDICAL ADVICE/ATTENTION
P337/313 IF EYE IRRITATION PERSISTS: GET MEDICAL ADVICE/ATTENTION
P405 STORE LOCKED UP
P501 DISPOSE OFF CONTAINERS TO..... (IN ACCORDANCE WITH LOCAL/REGIONAL/NATIONAL/INTERNATIONAL REGULATION)

16.5 Training advice appropriate for workers
N/A

16.6 Quality Declaration
The information contained herein is based on the present state of our knowledge. It characterizes the product with regards to the appropriate safety precaution. It does not represent a guarantee of the properties of the product.