SAFETY DATA SHEET
According to OSHA Standards 29 CFR 1910.1200

SECTION 1: IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY/UNDERTAKING

Product Identifiers

Product Name: PEPPERMINT OIL

Common Name: Peppermint Oil
Classification: Essential oil

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses:
Odor/flavor ingredient in flavors or fragrances.

Uses advised against:
Not for personal use in current form or concentration due to material exhibiting skin irritant properties.

SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Flammable liquids (Category 4), H227 - Combustible Liquid.
1910.106(a)(19)(v) - When a liquid with a flashpoint greater than 199.4 °F (93°C) is heated for use to within 30 °F (16.7 °C) of its flashpoint, it shall be handled in accordance with the requirements for a Category 4 flammable liquid.

Skin irritation (Category 2), H315
Eye irritation (Category 2A), H319
Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

Hazard pictograms:

Signal word(s):

<table>
<thead>
<tr>
<th>Hazard Statement Codes and Definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>H315  Causes skin irritation</td>
</tr>
<tr>
<td>H317  May cause an allergic skin reaction</td>
</tr>
<tr>
<td>H335  May cause respiratory irritation</td>
</tr>
<tr>
<td>H411  Toxic to aquatic life with long lasting effects</td>
</tr>
</tbody>
</table>

Precautionary Statements

| P280  Wear protective gloves/protective clothing/eye protection/face protection |
| P302+352 IF ON SKIN: Wash with plenty of soap and water |
| P262  Do not get in eyes, on skin, or on clothing |
| P273  Avoid release to the environment |
| P391  Collect spillage |

Other hazards

None noted.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Product</th>
<th>CAS#</th>
<th>Percent(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peppermint Oil</td>
<td>8006-90-4</td>
<td>100%</td>
</tr>
</tbody>
</table>

Production process: Steam distillation
Chemical characterization: Natural Complex Substance
Molecular formula: not applicable
Molecular Weight: not applicable

SECTION 4: FIRST AID MEASURES

Description of first aid measures

General advice:
Consult a physician. Provide this safety data sheet to the physician in attendance.

Inhalation:
If inhaled, move person to fresh air. If not breathing, give artificial respiration.

Contact with skin:
Remove contaminated clothes. Wash thoroughly with soap and water. If symptoms persist, seek medical advice.

Contact with eyes:
Flush immediately with water for at least 15 minutes. If symptoms persist, seek medical advice.
Ingestion:
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Seek medical advice.

**Most important symptoms and effects, both acute and delayed**
Harmful if swallowed. Irritation may occur in contact with skin. Irritant if inhaled.

**Symptoms:**
No information available.

**Acute and delayed effects:**
No information available.

**Indication of immediate medical attention and special treatment needed**

**Treatment:**
Immediately call a doctor/physician.

### SECTION 5: FIRE-FIGHTING MEASURES

**Extinguishing media**

**Suitable extinguishing media:**
Alcohol-resistant foam, carbon dioxide, dry chemical, foam.

**Unsuitable extinguishing media:**
Do not use a direct water jet on burning material.

**Special hazards arising from the substance or mixture**

**Specific hazards for firefighting:**
Water may be ineffective. Release of carbon monoxide and dioxide, smoke, soot. Wear self-contained breathing apparatus for firefighting if necessary.

**Advice for firefighters**

**Further information:**
Standard procedure for chemical fires. Use water spray to cool unopened containers.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions:**
Avoid inhalation and contact with skin and eyes. A self-contained breathing apparatus is recommended in case of a major spill. Vapors can accumulate in low areas to form explosive concentrations. For personal protection see section 8.

**Environmental precautions**

**Environmental precautions:**
Keep away from drains, surface- and groundwater and soil.

**Methods and materials for containment and cleaning up**

**Methods for cleaning up:**
Contain spillage promptly. Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapors. Gross spillages should be contained by use of sand or inert powder and disposed of according to the local regulations (see section 13). Keep in suitable, closed containers for disposal.

**Reference to other sections**
See sections 4, 8 and 13.

### SECTION 7: HANDLING AND STORAGE
Precautions for safe handling

Advice on safe handling:
Avoid excessive inhalation of concentrated vapors or mist, contact with skin and eyes. Follow good manufacturing practices for housekeeping and personal hygiene. Wash any exposed skin immediately after any chemical contact. Dispose or clean contaminated clothing before reusing. Keep away from ignition sources and open flame.

Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers:
Store in a cool, dry, ventilated area away from heat sources. Keep containers upright and tightly closed to prevent leakage.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters
Contains no substances with occupational exposure limit values.

Exposure controls

Engineering measures
When required, apply local exhaust systems to maintain negative air pressure relative to other production areas. If deemed necessary, isolate production areas when mixing or when material is openly handled.

Personal protective equipment

Respiratory protection:
When appropriate, use local ventilation systems around containers that have been opened to avoid excessive inhalation. Respiratory protection should not be required during normal operations in a work area where environmental controls such as adequate ventilation, etc. are applied and properly functioning.

Skin protection:
Avoid skin contact. Use chemically resistant gloves.

Eye protection:
Use tight-fitting goggles, face shield or safety glasses, if eye contact might occur.

Environmental exposure controls

General advice:
Keep away from drains that lead to groundwater and/or soil. Prevent further leakage or spillage safely.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Colorless to pale yellow liquid at 20 °C (1.013 hPa)</td>
</tr>
<tr>
<td>Odour</td>
<td>Minty, cooling, herbal</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not determined</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable (organic substance)</td>
</tr>
<tr>
<td>Freezing point</td>
<td>Not determined</td>
</tr>
<tr>
<td>Boiling point</td>
<td>Not determined (substance is a UVCB)</td>
</tr>
<tr>
<td>Flash point</td>
<td>67 °C (153 °F) (Closed Cup)</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Combustible</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>Not determined</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not determined</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.8960 - 0.9080 @ 20 °C</td>
</tr>
<tr>
<td>Solubility other solvents</td>
<td>Miscible with organic solvents</td>
</tr>
</tbody>
</table>
Oxidizing properties: Not determined
Auto ignition temperature: Not determined
Decomposition temperature: Not determined
Viscosity: Not determined
Explosive properties: Not determined
Oxidizing properties: Not determined

Other information
No additional information.

SECTION 10: STABILITY AND REACTIVITY

Reactivity
No hazards to be specifically mentioned.

Chemical stability
No hazardous reaction when handled and stored according to provisions.

Possibility of hazardous reactions
 Presents no significant reactivity hazard, by itself or in contact with water. Avoid contact with strong acids, alkali or oxidizing agents.

Conditions to avoid
Direct sources of heat (if not being distilled), open flame or ignition sources

Incompatible materials
Avoid contact with strong acids, alkali or oxidizing agents.

Hazardous decomposition products
Carbon monoxide and unidentified organic compounds may be formed during combustion.

SECTION 11: TOXICOLOGICAL INFORMATION

acute toxicity: LD (oral, rat) 2426 mg/kg
skin corrosion/irritation: the substance is classified as a skin irritant due to the presence of menthol
serious eye damage/irritation: the substance may be irritating to the eyes
respiratory or skin sensitization: the substance is a potential skin sensitizer due to the presence of limonene (> 1%)
germ cell mutagenicity: No information available.
carcinogenicity: No information available.
reproductive toxicity: No information available.
STOT-single exposure: No information available.
STOT-repeated exposure: No information available.
aspiration hazard: No information available.

IARC: To the best of our knowledge, no component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by
ACGIH: To the best of our knowledge, no component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP: This product contains a naturally occuring constituent present at levels greater than or equal to 0.1% that is identified as probable, possible or confirmed carcinogen in male and female rats.
OSHA: To the best of our knowledge, no component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

SECTION 12: ECOLOGICAL INFORMATION
Toxicity

Acute (short-term) toxicity:
- Fish: Not determined
- Crustacea: Not determined
- Algae/aquatic plants: Not determined
- Other organisms: Not determined

Chronic (long-term) toxicity:
- Fish: Not determined
- Crustacea: Not determined
- Algae/aquatic plants: Not determined
- Other organisms: Not determined

Persistence and degradability
- Abiotic Degradation: Not determined
- Physical- and photo-chemical elimination: Not determined
- Biodegradation: Not determined

The main constituents of this NCS are readily or inherently biodegradable.

Bioaccumulative potential
- Partition coefficient n-octanol / water (log Kow): Not determined
- Bioconcentration factor (BCF): Not determined

12.4 Mobility in soil
- Surface tension: Not determined
- Adsorption/Desorption: Not determined

Results of PBT and vPvB assessment
This substance is not considered to be persistent, bioaccumulating or toxic (PBT).
This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

Other adverse effects
No information available.

Additional information
Substance is judged by the properties of the constituents.
Some of the constituents classify as:
Very toxic or toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Environmental hazard classification is based on the presence and content of the constituents (see section 3.1)

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods
Product: Dispose of according to local regulations. Avoid disposing into drainage systems and into the environment.
Contaminated packaging: Empty containers should be cleaned and preferably be recycled or disposed of according to regulations.

SECTION 14: TRANSPORT INFORMATION
SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

FEMA No.: 2848
FDA: 21 CFR 182.20
INCI name: Mentha Piperita
Harmonised Tariff code: 3301.24

United States:
SARA 302 Components
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards
Fire Hazard

Massachusetts Right To Know Components
No components are subject to the Massachusetts Right to Know Act.

New Jerky Right To Know Components
Oils, peppermint CAS-No. 8006-90-4

Pennsylvania Right To Know Components
Oils, peppermint CAS-No. 8006-90-4
Indication of changes
No changes noted.

NOTE: Full text of Hazard and Precautionary statements referred to under sections 2 and 3

Relevant Hazard (H-) and Precautionary (P-)phrases (number and full text):

Hazard statements:
- H315 causes skin irritation.
- H317 May cause an allergic skin reaction.
- H335 May cause respiratory irritation.
- H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:
- P280 Wear protective gloves/eye protection/face protection.
- P302/352 If on Skin: Wash with plenty of soap and water.
- P262 Do not get in eyes, on skin or on clothing.
- P273 Avoid release to the environment.
- P391 Collect spillage.

Legal Disclaimer
The information contained herein is believed to be based on data considered accurate and reliable and reasonable care has been taken into the preparation of this document. However, the data is provided without warranty, expressed or implied regarding its correctness or accuracy. It is the user’s responsibility both to determine safe conditions for use of this product, and to assume liability for loss, injury, damage, or expense resulting from the improper use of this product.

***** END OF Safety Data Sheet *****