1. Product and Company Identification

Product Code: 876543
Product Name: Lime Essential Oil
Trade Name: Lime Essential Oil
Company Name: Perfumer's Apprentice
170 Technology Circle
Scotts Valley, CA 95066

Web site address: Perfumersapprentice.com
Emergency Contact: Chem-Tel Phone
(831)316-7137
(800)255-3924
01 (813)248-0585

Information: Contract #: MIS6760377

2. Hazards Identification

Flammable Liquids, Category 3

GHS Signal Word: Warning
GHS Hazard Phrases: Flammable liquid and vapor.
GHS Precaution Phrases: Keep away from {heat/sparks/open flames/hot surfaces). - No smoking.
Keep container tightly closed.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting{.../} equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Wear {protective gloves/protective clothing/eye protection/face protection}.

GHS Response Phrases: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.

GHS Storage and Disposal Phrases: Store in cool/well-ventilated place.
Dispose of contents/container to {...}.

Potential Health Effects (Acute and Chronic):

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.
Skin Contact: May be harmful if absorbed through the skin. May cause skin irritation.
Eye Contact: May cause eye irritation.
Ingestion: May be harmful if swallowed.

3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Hazardous Components (Chemical Name)</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>8008-26-2</td>
<td>Lime oil</td>
<td>100.0 %</td>
</tr>
</tbody>
</table>
4. First Aid Measures

Emergency and First Aid Procedures:

In Case of Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In Case of Skin Contact: Wash off with soap and plenty of water. Consult a physician.

In Case of Eye Contact: Flush eyes with water as a precaution.

In Case of Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Signs and Symptoms Of Exposure: Dermatitis. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Note to Physician: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

5. Fire Fighting Measures

Flash Pt: 48.90 C Method Used: Closed Cup
Explosive Limits: LEL: No data. UEL: No data.
Autoignition Pt: NA

Suitable Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam.

Fire Fighting Instructions: Wear self contained breathing apparatus for fire fighting if necessary.

Flammable Properties and Hazards: CONDITIONS OF FLAMMABILITY:
Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.


Further information. Use water spray to cool unopened containers.

6. Accidental Release Measures

Steps To Be Taken In Case Material Is Released Or Spilled:

Personal precautions.
Avoid breathing vapors, mist or gas. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. Environmental precautions.
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

7. Handling and Storage

Precautions To Be Taken in Handling: Avoid inhalation of vapor or mist.
Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Precautions To Be Taken in Storing: Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
### 8. Exposure Controls/Personal Protection

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Partial Chemical Name</th>
<th>OSHA TWA</th>
<th>ACGIH TWA</th>
<th>Other Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>8008-26-2</td>
<td>Lime oil</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
</tbody>
</table>

**Respiratory Equipment (Specify Type):**
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Eye Protection:**
Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Protective Gloves:**
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Other Protective Clothing:**
Impervious clothing. Flame retardant antistatic protective clothing.

**Engineering Controls (Ventilation etc.):**
No data available.

**Work/Hygienic/Maintenance Practices:**
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical States:</th>
<th>[ ] Gas</th>
<th>[ X ] Liquid</th>
<th>[ ] Solid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance and Odor:</td>
<td>Transparent yellow liquid.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Key lime taste and aroma.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pH:</td>
<td>No data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melting Point:</td>
<td>No data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boiling Point:</td>
<td>176.00 C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flash Pt:</td>
<td>48.90 C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Method Used:</td>
<td>Closed Cup</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaporation Rate:</td>
<td>No data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas):</td>
<td>No data available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explosive Limits:</td>
<td>LEL: No data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UEL: No data.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapor Pressure (vs. Air or mm Hg):</td>
<td>No data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapor Density (vs. Air = 1):</td>
<td>No data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific Gravity (Water = 1):</td>
<td>0.86 at 25.0 C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Density:</td>
<td>0.861 G/ML</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solubility in Water:</td>
<td>No data.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Octanol/Water Partition: No data.
Autoignition Pt: NA
Decomposition Temperature: No data.
Viscosity: No data.

10. Stability and Reactivity

Stability: Unstable [ ] Stable [ X ]
Conditions To Avoid - Instability: Heat, flames and sparks.
Incompatibility - Materials To Avoid: Strong oxidizing agents.
Hazardous Decomposition or Byproducts: formed under fire conditions. Nature of decomposition products unknown.
Possibility of Hazardous Reactions: Will occur [ ] Will not occur [ X ]
Conditions To Avoid - Hazardous Reactions: No data available.

11. Toxicological Information

Toxicological Information: No data available.
Irritation or Corrosion: Skin - rabbit -
Carcinogenicity/Other Information:
  IARC: 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 IARC.
  ACGIH: 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: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
  OSHA: 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.
Carcinogenicity: NTP? No IARC Monographs? No OSHA Regulated? No

12. Ecological Information

Persistence and Degradability: No data available.
Bioaccumulative Potential: No data available.
Mobility in Soil: No data available.

13. Disposal Considerations

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.
Contaminated packaging.
Dispose of as unused product.

14. Transport Information

GHS Classification: Flammable Liquids, Category 3 - Warning! Flammable liquid and vapor
15. Regulatory Information

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Hazardous Components (Chemical Name)</th>
<th>S. 302 (EHS)</th>
<th>S. 304 RQ</th>
<th>S. 313 (TRI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8008-26-2</td>
<td>Lime oil</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections as indicated:
- [ ] Yes [X] No Acute (immediate) Health Hazard
- [X] Yes [ ] No Chronic (delayed) Health Hazard
- [X] Yes [ ] No Fire Hazard
- [ ] Yes [X] No Sudden Release of Pressure Hazard
- [ ] Yes [X] No Reactive Hazard

Other US EPA or State Lists

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Hazardous Components (Chemical Name)</th>
<th>Other US EPA or State Lists</th>
</tr>
</thead>
<tbody>
<tr>
<td>8008-26-2</td>
<td>Lime oil</td>
<td>CA PROP.65: No</td>
</tr>
</tbody>
</table>

International Regulatory Lists

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Hazardous Components (Chemical Name)</th>
<th>International Regulatory Lists</th>
</tr>
</thead>
<tbody>
<tr>
<td>8008-26-2</td>
<td>Lime oil</td>
<td>REACH: Yes - (P)</td>
</tr>
</tbody>
</table>

16. Other Information

Revision Date: 03/03/2015

Additional Information About This Product: No data available.