1. Chemical Product and Company Identification

Product Name: Lime
Product Number: 515123
Product Use: Fragrance for Consumer product
Manufacturer: Wellington Fragrance
33306 Glendale St.
Livonia, MI 48150 USA
734-261-5531 Fax 734-261-5571
www.wellingtonfragrance.com

Emergency Telephone Number(s):
(800) 255-3924 Domestic USA, Canada, Puerto Rico, and US Virgin Islands
(813) 248-0585 International

2. Hazards Identification

This mixture has not been tested as a whole. The effects, listed below, are based on evaluation of individual components in accordance with the provisions of 1910.1200 of title 29 of the U.S. Code of Federal Regulations.

Emergency Overview of OSHA Hazards

<table>
<thead>
<tr>
<th>Flammability</th>
<th>Class IIIA Combustible Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Dermal/Eye</td>
<td>12 Causes skin irritation.</td>
</tr>
<tr>
<td></td>
<td>15 May cause eye irritation.</td>
</tr>
<tr>
<td>Acute Inhalation</td>
<td>23 May cause respiratory tract irritation.</td>
</tr>
<tr>
<td>Acute Oral</td>
<td>3 May be harmful if swallowed or if aspirated into the lungs</td>
</tr>
<tr>
<td>Reproductive/Developmental</td>
<td>38 May damage fertility or the unborn child.</td>
</tr>
<tr>
<td>Sensitization/Allergic</td>
<td>31 May cause allergic skin reaction.</td>
</tr>
<tr>
<td></td>
<td>32 May cause light-induced allergic skin reaction.</td>
</tr>
</tbody>
</table>

Target Organ Effects 26 Prolonged or repeated ingestion may cause damage to: kidneys, liver, gastrointestinal tract, respiratory tract.

Carcinogenicity: This mixture contains ingredients identified as carcinogens, at 0.1% or greater, by the following:

None [ ] ACGIH [X] IARC [ ] NTP [X] OSHA [X]

3. Composition/Information on Ingredients

Chemical Identification: Perfumery Compound (Mixture)
INCI Name: Fragrance

Fragrance Compound: a multi component mixture of fragrance ingredients. The specific chemical identities of the ingredients not listed herein are considered by Wellington Fragrance to be Trade Secrets and are withheld in accordance with the provisions of 1910.1200 of title 29 of the U.S. Code of Federal Regulations.

This product is a complex mixture of fragrance ingredients, which contains among others the following substance(s), presenting a health or environmental hazard within the meaning of OSHA Hazard Communication Standard 29CFR1910.1200 (HCS), or having an occupational Exposure Limit:

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Ingredient(s)</th>
<th>Risk Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>106-24-1</td>
<td>Geraniol</td>
<td>11, 15, 31</td>
</tr>
<tr>
<td>117-81-7</td>
<td>Diethyl Hexyl Phthalate</td>
<td>38</td>
</tr>
<tr>
<td>5392-40-5</td>
<td>Citral</td>
<td>26</td>
</tr>
</tbody>
</table>
3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Ingredient(s)</th>
<th>Risk Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>78-70-6</td>
<td>Linalool</td>
<td>12, 26</td>
</tr>
<tr>
<td>8008-26-2</td>
<td>Citrus aurantifolia (Lime) oil</td>
<td>3, 12, 31</td>
</tr>
<tr>
<td>8008-57-9</td>
<td>Citrus aurantium dulcis (Orange) oil</td>
<td>3, 12, 31</td>
</tr>
<tr>
<td>8050-15-5</td>
<td>Methyl ester of rosin (partially hydrogenated)</td>
<td>31</td>
</tr>
<tr>
<td>908008-26-2</td>
<td>Citrus aurantifolia (Lime) oil</td>
<td>3, 12, 31, 32</td>
</tr>
<tr>
<td>98-55-5</td>
<td>alpha-Terpineol</td>
<td>11, 15, 23</td>
</tr>
<tr>
<td>117-81-7</td>
<td>Diethyl Hexyl Phthalate</td>
<td>ACGIH, NTP, OSHA 20 - 30 %</td>
</tr>
</tbody>
</table>

Total Hydrocarbon Content (% w/w) = 30.14

4. First Aid Measures

Inhalation: Remove from exposure site to fresh air and keep at rest. Obtain medical advice.
Eye Exposure: Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.
Skin Exposure: Remove contaminated clothes. Wash thoroughly with water (and soap). Contact physician if symptoms persist.
Ingestion: Rinse mouth with water and obtain medical advice.
Others: Take risk and safety phrases (section 15) into account.

5. Fire-Fighting measures

Flash Point: 144 F (62.22 C)
Flammability: Class IIIA Combustible Liquid
Extinguishing Media: Carbon dioxide, dry chemical, foam.
Do not use a direct water jet on burning material.
Special Fire Fighting Procedures: Wear NIOSH approved self-contained breathing apparatus and full protective clothing when fighting fires involving chemicals. Use water spray to cool containers exposed to fire.

Unusual Fire and Explosion Hazards: None Known to Wellington Fragrance

6. Accidental Release Measures

Personal precautions: Avoid inhalation and contact with skin and eyes. A self-contained breathing apparatus is recommended in case of a major spill.
Spillage: Clean up 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.
Environmental Precautions: Keep away from drains, soil, and surface and groundwater.

7. Handling and Storage

Handling: Apply according to good manufacturing and industrial hygiene practices with proper ventilation. Do not drink, eat or smoke while handling. Respect good personal hygiene.
Storage: Store in a cool, dry and ventilated area away from heat sources and protected from light in tightly closed original container. Avoid plastic and uncoated metal container. Keep air contact to a minimum.
Fire protection: Keep away from ignition sources and naked flame.
8. Exposure Controls/Personal Protection

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Principal/RIFM (Common) Name</th>
<th>ACGIH TLV-STE (ppm)</th>
<th>ACGIH TLV-TWA (ppm)</th>
<th>OSHA Ceiling Limits (ppm)</th>
<th>OSHA STEL (ppm)</th>
<th>OSHA TWA (mg/m3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>117-81-7</td>
<td>Diethyl Hexyl Phthalate</td>
<td>na</td>
<td>5.00</td>
<td>na</td>
<td>na</td>
<td>5.00</td>
</tr>
</tbody>
</table>

ENGINEERING MEASURES

Closed Systems: Wherever possible, use closed systems to transfer fragrances.

Isolation: If appropriate, isolate mixing rooms and other areas where fragrances are openly handled and maintain these areas under negative air pressure relative to the rest of the plant.

Ventilation: Use local exhaust ventilation meeting ACGIH design criteria around tanks and other sources of potential exposures, including places where fragrances are openly weighed or measured, as well as general dilution ventilation of the work area to eliminate or reduce possible worker exposures.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Avoid excessive inhalation of concentrated vapors. Apply local ventilation where appropriate.

Eye Protection: Use goggles.

Skin Protection: Avoid Skin contact. Use chemically resistant gloves as needed.

9. Physical and Chemical Properties

Appearance: Conforms to Standard
Color: Yellow to Orange
Freezing Point: Not determined
Melting Point: Not determined
Auto flammability: Not determined
Auto oxidizability: None Expected
Vapor Pressure (mmHg@20 C): -1
%VOC: -1
Density @ 25 C: 0.9295
Soluble in: Oil
Refractive Index @ 25 C: 1.4860

10. Stability and Reactivity

Reactivity: Presents no significant reactivity hazard, by itself or in contact with water. Avoid contact with strong acids, alkali or oxidizing agents.

Incompatibility: Avoid contact with strong acids, alkali or oxidizing agents.

Decomposition: Carbon monoxide and unidentified organic compounds may be formed during combustion.

11. Toxicological Information

Based on the ingredients in this mixture and their concentrations in accordance with the provisions of 1910.1200 of title 29 of the U.S. Code of Federal Regulations:

Acute Oral Toxicity (Rat) Overall (Calculated Estimate) LD50: 4807.69 mg/Kg
3 May be harmful if swallowed or if aspirated into the lungs
8008-26-2 Citrus aurantifolia (Lime) oil (LD50 = >5000 mg/Kg)
8008-57-9 Citrus aurantium dulcis (Orange) oil (LD50 = >5000 mg/Kg)
908008-26-2 Citrus aurantifolia (Lime) oil (LD50 = >5000 mg/Kg)

Acute Dermal Toxicity (Rabbit) Overall (Calculated Estimate) LD50: 4964.18 mg/Kg
None
11. **Toxicological Information**

**Acute Inhalation Toxicity (Rat) Overall (Calculated Estimate)** LC50: 13.40 mg/Kg

- 23 May cause respiratory tract irritation.
  - 98-55-5 alpha-Terpineol (LC50 = >20 mg/L/4hr)

**Skin irritation**

- 12 Causes skin irritation.
  - 78-70-6 Linalool
  - 8008-26-2 Citrus aurantifolia (Lime) oil
  - 8008-57-9 Citrus aurantium dulcis (Orange) oil
  - 908008-26-2 Citrus aurantifolia (Lime) oil

**Eye irritation**

- 15 May cause eye irritation.
  - 106-24-1 Geraniol
  - 98-55-5 alpha-Terpineol

**Sensitization & Allergic Reactions**

- 31 May cause allergic skin reaction.
  - 106-24-1 Geraniol
  - 8008-26-2 Citrus aurantifolia (Lime) oil
  - 8008-57-9 Citrus aurantium dulcis (Orange) oil
  - 8050-15-5 Methyl ester of rosin (partially hydrogenated)
  - 908008-26-2 Citrus aurantifolia (Lime) oil

- 32 May cause light-induced allergic skin reaction.
  - 908008-26-2 Citrus aurantifolia (Lime) oil

**Carcinogenicity or Tumorigenicity**

- None

**Genotoxicity**

- None

**Reproductive/Developmental**

- 38 May damage fertility or the unborn child.
  - 117-81-7 Diethyl Hexyl Phthalate

**Target Organ Effects**

- 26 Prolonged or repeated ingestion may cause damage to: kidneys, liver, gastrointestinal tract, respiratory tract.
  - 5392-40-5 Citral
  - 78-70-6 Linalool

**Ecological Information**

Avoid contamination of soil, ground and surface water. While no specific environmental toxicity or related data is available, fragrance compositions are not expected to accumulate in the environment and environmental problems are not expected under normal conditions of use.

**Disposal Conditions**

Dispose of according to local regulations. Avoid disposing into drainage systems and into the environment.
14. Transport Information

<table>
<thead>
<tr>
<th>Regulator</th>
<th>Class</th>
<th>Pack Group</th>
<th>Sub Risk</th>
<th>UN-nr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. DOT (Non-Bulk)</td>
<td>Not Regulated - Not Dangerous Goods</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemicals NOI</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADR/RID (International Road/Rail)</td>
<td></td>
<td>9</td>
<td>III</td>
<td>UN3082</td>
</tr>
<tr>
<td>Environmentally Hazardous</td>
<td>Substance, Liquid, n.o.s.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IATA (Air Cargo)</td>
<td></td>
<td>9</td>
<td>III</td>
<td>UN3082</td>
</tr>
<tr>
<td>Environmentally Hazardous</td>
<td>Substance, Liquid, n.o.s.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMDG (Sea)</td>
<td></td>
<td>9</td>
<td>III</td>
<td>UN3082</td>
</tr>
<tr>
<td>Environmentally Hazardous</td>
<td>Substance, Liquid, n.o.s.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Ingredient of greatest environmental impact: 8008-57-9 Citrus aurantium dulcis (Orange) oil

15. Regulatory Information

The components of this fragrance product are in compliance, either listed or exempt, with the U.S. EPA Toxic Substances Control Act (TSCA) Inventory of Chemical Substances: Yes

100.00% of the components of this fragrance product are found on the Canadian DSL.

The following ingredient(s) are NOT found on the DSL, status as noted:

<table>
<thead>
<tr>
<th>Status</th>
<th>Chemical Class</th>
<th>CAS#</th>
<th>Concentration (% by wt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NONE</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

United States Code of Federal Regulations 40 CFR (EPCRA, SARA, CERCLA and CAA)

This proprietary mixture contains the following chemicals subject to reporting requirements under the Emergency Planning and Community Right-to-Know Act (EPCRA), also known as Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA), Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and chemicals listed under section 112(r) of the Clean Air Act (CAA).

<table>
<thead>
<tr>
<th>Chemical Class</th>
<th>CAS#</th>
<th>Concentration (% by wt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dioctyl Tere Phthalate (DOTP)</td>
<td>6422-86-2</td>
<td>20 - 30 %</td>
</tr>
</tbody>
</table>

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)

This product contains the following chemical(s) known to the State of California to cause cancer, birth defects or other reproductive harm (NFS = In accordance with Title 22, California Code of Regulations, Division 2, Part 2, Subdivision 1, Chapter 3, subsection (b) of Section 12501, this material is exempt from reporting as a naturally occurring chemical from a food source):  

<table>
<thead>
<tr>
<th>Chemical Class</th>
<th>CAS#</th>
<th>Concentration (% by wt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethyl Hexyl Phthalate</td>
<td>117-81-7</td>
<td>20 - 30 %</td>
</tr>
</tbody>
</table>

16. Other Information

Disclaimer

The information in this MSDS pertains only to the material referred to in Section I. Any modification to the fragrance or use of the fragrance in a product application requires a new MSDS for the finished product, which is the responsibility of the user to obtain and produce its own.
16. Other Information

The information in this MSDS was obtained from current and reliable sources. However, the data is provided without any warrant, expressed or implied, regarding its correctness or accuracy. Since the use, handling, storage and disposal of this product are beyond Wellington Fragrance control, it is the responsibility of the user both to determine safe conditions for the use of this product and to assume liability of loss, damage, or expense arising out of the product's improper use. No warranty expressed or implied regarding the product described herein shall be created by or inferred from any statement or mission in this MSDS. Various Federal, State or Provincial agencies may have specific regulations concerning the transportation, handling, storage, use, or disposal of this product, which may not be reflected in this MSDS. The user should review these regulations to ensure full compliance.