### Section 1. Product and Company Identification

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Farnesol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product ID</td>
<td>F0268</td>
</tr>
<tr>
<td>Chemical Name</td>
<td>LKT Laboratories, Inc</td>
</tr>
<tr>
<td>(Synonyms)</td>
<td></td>
</tr>
<tr>
<td>Supplier</td>
<td>LKT Laboratories, Inc</td>
</tr>
<tr>
<td></td>
<td>545 Phalen Blvd.</td>
</tr>
<tr>
<td></td>
<td>St. Paul, MN 55130 USA</td>
</tr>
<tr>
<td></td>
<td>Ph: 651-644-8424 Fax: 651-644-8357</td>
</tr>
<tr>
<td></td>
<td><a href="http://www.lktlabs.com">www.lktlabs.com</a> - <a href="mailto:getinfo@lktlabs.com">getinfo@lktlabs.com</a></td>
</tr>
<tr>
<td>Emergency Phone #</td>
<td>1-800-424-9300</td>
</tr>
</tbody>
</table>

### Section 2. Hazards Identification

<table>
<thead>
<tr>
<th>GHS Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin corrosion/irritation (Category 2), H315</td>
</tr>
<tr>
<td>Sensitization, Skin (Category 1), H317</td>
</tr>
<tr>
<td>Eye irritation (Category 2A), H319</td>
</tr>
<tr>
<td>Acute aquatic toxicity (Category 2), H401</td>
</tr>
<tr>
<td>Hazardous to the aquatic environment, long term (Category 2), H411</td>
</tr>
</tbody>
</table>

#### GHS Label elements including precautionary statements

<table>
<thead>
<tr>
<th>Pictogram</th>
<th><img src="image" alt="" /></th>
</tr>
</thead>
<tbody>
<tr>
<td>Signal word</td>
<td>Warning</td>
</tr>
<tr>
<td>Hazard and precautionary statements</td>
<td></td>
</tr>
<tr>
<td>H315 - Causes skin irritation.</td>
<td></td>
</tr>
<tr>
<td>H317 - May cause an allergic skin reaction.</td>
<td></td>
</tr>
<tr>
<td>H319 - Causes serious eye irritation.</td>
<td></td>
</tr>
<tr>
<td>H411 - Toxic to aquatic life with long lasting effects.</td>
<td></td>
</tr>
<tr>
<td>Precautionary statements</td>
<td></td>
</tr>
<tr>
<td>P261 - Avoid breathing dust, fumes, gas, mist, vapors, and spray.</td>
<td></td>
</tr>
<tr>
<td>P264 - Wash skin thoroughly after handling.</td>
<td></td>
</tr>
<tr>
<td>P272 - Contaminated work clothing should not be allowed out of the workplace.</td>
<td></td>
</tr>
<tr>
<td>P273 - Avoid release to the environment.</td>
<td></td>
</tr>
<tr>
<td>P280 - Wear protective gloves, protective clothing, eye protection, and face protection.</td>
<td></td>
</tr>
<tr>
<td>P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.</td>
<td></td>
</tr>
<tr>
<td>P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</td>
<td></td>
</tr>
<tr>
<td>P333 + P313 - IF SKIN IRRITATION OR RASH OCCURS: Get medical advice/attention.</td>
<td></td>
</tr>
<tr>
<td>P337 + P313 - IF EYE IRRITATION PERSISTS: Get medical advice/attention.</td>
<td></td>
</tr>
<tr>
<td>P362 - Take off contaminated clothing and wash before reuse.</td>
<td></td>
</tr>
<tr>
<td>P391 - Collect spillage.</td>
<td></td>
</tr>
<tr>
<td>P501 - Dispose of contents/container to an approved waste disposal plant.</td>
<td></td>
</tr>
</tbody>
</table>

### HMIS Classification

| Health hazard: | 2 |
| Chronic health hazard: | |
| Flammability: | 1 |
| Physical hazard: | 0 |

### NFPA Rating

| Health hazard: | 2 |
| Fire hazard: | 1 |
| Physical hazard: | 0 |

### Potential Health Effects

- **Inhalation**: May be harmful if inhaled. May cause respiratory tract irritation.
- **Skin**: May be harmful if absorbed through skin. Causes skin irritation. May cause an allergic skin reaction.
- **Eyes**: Causes serious eye irritation.
Ingestion - May be harmful if swallowed.

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**Section 3. Composition/Information on Ingredients**

<table>
<thead>
<tr>
<th>Substances</th>
<th>Ingredient: Title Compound</th>
<th>Percent: 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula</td>
<td>C_{15}H_{26}O</td>
<td>Formula Wt.: 222.37</td>
</tr>
<tr>
<td>CAS No.</td>
<td>4602-84-0</td>
<td>EC No.: 225-004-1</td>
</tr>
</tbody>
</table>

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**Section 4. First Aid Measures**

**General advice**
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**Eye Contact**
Flush eyes with plenty of water for at least 15 minutes and consult a physician.

**Skin Contact**
Wash off with soap and plenty of water. Consult a physician.

**Inhalation**
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**Ingestion**
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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**Section 5. Firefighting Measures**

**Flash Point**
155°C - closed cup.

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

**Firefighting Procedures**
Wear self-contained breathing apparatus for fire fighting if necessary.

**Unusual Fire Hazards**
Carbon oxides.

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**Section 6. Accidental Release Measures**

**Personal Precautions**
Use personal protective equipment. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation.

**Environmental Precautions**
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**Methods and materials for containment and cleanup**
Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

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**Section 7. Handling and Storage**

**Handling**
Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

**Storage Conditions**
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. Recommended storage temperature: Ambient

**Hazardous Decomposition Products**
Not available.

**Other Remarks**
Storage class (TRGS 510): Combustible liquids.
Section 8. Exposure Controls/Personal Protection

Personal protective equipment
EXPOSURE CONTROLS
Contains no substances with occupational exposure limit values.
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
PERSONAL PROTECTION
Eye/face 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).
Skin protection: 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. Full and Splash contact - Material: Nitrile rubber. Minimum layer thickness: 0.11mm, Break through time: 480 min., Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M).
Body protection: Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Respiratory protection: 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).

Section 9. Physical and Chemical Properties

Physical State  Viscous liquid.  
Color Clear, very light yellow, slightly viscous liquid.

Boiling Point  149˚C at 5 hPa - lit.  
Volatile Not available.

Melting Point  <25°C  
Density Not available.

Solubility Insoluble in water.  
pH Not available.

Flash Point  155˚C - closed cup.  
Ignition temperature Not available.

Lower explosion limit Not available.  
Autoignition temperature Not available.

Upper explosion limit Not available.  
Vapor pressure Not available.

Water solubility Not available.  
Odor Not available.

Partition coefficient: n-octanol/water Not available.  
Odor Threshold Not available.

Relative vapor density Not available.  
Evaporation rate Not available.

Section 10. Stability and Reactivity

Stability Stable under recommended storage conditions.

Materials To Avoid Strong oxidizing agents.

Hazardous Decomposition Products Not available.
### Section 11. Toxicological Information

**Oral LD50**  
Rat - 6,000 mg/kg  

**Inhalation LC50**  
Not available.

**Dermal LD50**  
Not available.

**Other information on acute toxicity**  
Not available.

**Skin corrosion/irritation**  
Not available.

**Serious eye damage/irritation**  
Not available.

**Respiratory or skin sensitization**  
Not available.

**Germ cell mutagenicity**  
Not available.

**Reproductive Toxicity**  
Not available.

**Aspiration Hazard**  
Not available.

**Specific organ toxicity single exposure (GHS)**  
Not available.

**Specific organ toxicity repeated exposure (GHS)**  
Not available.

**Teratogenicity**  
Not available.

**RTECS:** JR4979000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

### Potential Health Effects

- **Inhalation:** May be harmful if inhaled. May cause respiratory tract irritation.
- **Skin:** May be harmful if absorbed through skin. Causes skin irritation. May cause an allergic skin reaction.
- **Eyes:** Causes serious eye irritation.
- **Ingestion:** May be harmful if swallowed.

### Carcinogenicity

- **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.

### Section 12. Ecological Information

<table>
<thead>
<tr>
<th><strong>Toxicity</strong></th>
<th><strong>Mobility in soil</strong></th>
<th><strong>PBT and vPvB assessment</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicity to fish - LC50 - Oncorhynchus mykiss (rainbow trout) - 1.8 mg/l - 96 h</td>
<td>Not available.</td>
<td>PBT/vPvB assessment not available as chemical safety assessment not required/not available.</td>
</tr>
<tr>
<td>Toxicity to daphnia and other aquatic invertebrates - EC50 - Daphnia magna (Water flea) - 2.2 mg/l - 48 h</td>
<td>Not available.</td>
<td></td>
</tr>
</tbody>
</table>
Persistence and degradability Not available.

Bioaccumulative potential Not available.

Other adverse effects An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects.

Section 13. Disposal Considerations

Waste Disposal
Dispose of material according to all federal, state, and local regulations.
Offer material to a licensed, professional waste disposal company to dispose of as unused product.

Section 14. Transport Information

DOT (US) Not dangerous goods.

IATA
UN number: 3082  Class: 9  Packing group: III
Proper shipping name: Environmentally Hazardous Substance, Liquid, n.o.s. (Farnesol)
Marine pollutant: Yes

IMDG
UN number: 3082  Class: 9  Packing group: III
EMS No.: F-A, S-F  Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Farnesol)
Marine pollutant: Yes

Further Information
EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packages and combination packages containing inner packages with Dangerous Goods > 5L for liquids or > 5kg for solids.

Section 15. Regulatory Information

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

SARA 313 Components SARA 313: 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 Components Acute health hazard

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

Pennsylvania Right To Know Components Farnesol  CAS #: 4602-84-0  Revision Date:

New Jersey Right To Know Components Farnesol  CAS #: 4602-84-0  Revision Date:

California Prop 65 Components This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

Section 16. Other Information

Other information The information in this document is believed to be correct but is not necessarily complete. LKT does not guarantee the accuracy of the information. The burden of verifying the information in this document rests solely upon the user.