Section 1. Product and Company Identification

Product Name: Glabridin  
Product ID: G4400  
Chemical Name (Synonyms): (R)-4-(3,4-Dihydro-8,8-dimethyl-2H,8H-benzo[1,2-b:3,4-b’]dipyran-3-yl)-1,3-benzenediol  
Supplier: LKT Laboratories, Inc  
545 Phalen Blvd.  
St. Paul, MN 55130 USA  
Ph: 651-644-8424 Fax: 651-644-8357  
www.lktlabs.com - getinfo@lktlabs.com  
Emergency Phone #: 1-800-424-9300

Section 2. Hazards Identification

GHS Classification: Chronic aquatic toxicity (Category 4), H413

GHS Label elements including precautionary statements

Pictogram

Signal word

Hazard and precautionary statements

Hazard statement: H413 - May cause long lasting harmful effects to aquatic life.  
Precautionary statements:  
P273 - Avoid release to the environment.  
P501 - Dispose of contents/ container to an approved waste disposal plant.

HMIS Classification

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

NFPA Rating

Health hazard: 0  
Fire hazard: 1  
Reactivity hazard: 0

Potential Health Effects

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.  
Skin: May be harmful if absorbed through skin. May cause skin irritation.  
Eyes: May causes 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>Formula</th>
<th>CAS No.</th>
<th>Formula Wt.</th>
<th>EC No.</th>
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<tbody>
<tr>
<td></td>
<td>C₂₀H₂₀O₄</td>
<td>59870-68-7</td>
<td>324.37</td>
<td></td>
</tr>
</tbody>
</table>

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**Section 4. First Aid Measures**

**General advice**

**Eye Contact**
Flush eyes with water as a precaution.

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

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

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

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**Section 5. Firefighting Measures**

**Flash Point**
267 °C (513 °F) - closed cup

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

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

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**Section 6. Accidental Release Measures**

**Personal Precautions**
Avoid dust formation. Avoid breathing vapors, mist or gas.

**Environmental Precautions**
No special environmental precautions required.

**Methods and materials for containment and cleanup**
Sweep up and shovel. Keep in suitable, closed containers for disposal.

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**Section 7. Handling and Storage**

**Handling**
Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed.

**Storage Conditions**
Keep container tightly closed in a dry and well-ventilated place. Recommend storage temperature: Ambient.

**Hazardous Decomposition Products**
Hazardous decomposition products formed under fire conditions. - Carbon oxides.

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**Other Remarks**
Section 8. Exposure Controls/Personal Protection

**Personal protective equipment**

*EXPOSURE CONTROLS*
Contains no substances with occupational exposure limit values. Hazardous components without workplace control parameters.

*PERSONAL PROTECTION*

**Eye/face protection** - 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.

**Body protection** - Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific workplace. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection** - Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

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Section 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Color</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point</td>
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<td></td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not available.</td>
<td></td>
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<tr>
<td>Solubility</td>
<td>DMSO ≥14 mg/mL</td>
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</tr>
<tr>
<td>Flash Point</td>
<td>267˚C (513 ˚F) - closed cup</td>
<td></td>
</tr>
<tr>
<td>Lower explosion limit</td>
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<tr>
<td>Upper explosion limit</td>
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<tr>
<td>Water solubility</td>
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<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>log Pow: 4.621</td>
<td></td>
</tr>
<tr>
<td>Relative vapor density</td>
<td>Not available.</td>
<td></td>
</tr>
</tbody>
</table>

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Section 10. Stability and Reactivity

**Stability**
Stable under recommended storage conditions.

**Materials To Avoid**
Strong oxidizing agents.

**Hazardous Decomposition Products**
Hazardous decomposition products formed under fire conditions. - Carbon oxides.
Section 11. Toxicological Information

Oral LD50  
Not available.

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.

Synergistic effects  
Not available.

Specific organ toxicity single exposure (GHS)  
Not available.

Specific organ toxicity repeated exposure (GHS)  
Not available.

Additional Information  
RTECS: Not available.
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Signs and symptoms of exposure  
Not available.

Potential Health Effects
Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.
Skin: May be harmful if absorbed through skin. May cause skin irritation.
Eyes: May cause 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.
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

Toxicity  
Not available.

Mobility in soil  
Not available.

PBT and vPvB assessment  
PBT/vPvB assessment not available as chemical safety assessment not required/not
Persistence and degradability Not available.  Other adverse effects Not available.

Bioaccumulative potential Not available.

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** Not dangerous goods.

**IMDG** Not dangerous goods.

Further Information

Section 15. Regulatory Information

**Reach No.**

**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 Components** No SARA hazards.

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

**Pennsylvania Right To Know Components**
Glabridin CAS #: 59870-68-7 Revision Date:

**New Jersey Right To Know Components**
Glabridin CAS #: 59870-68-7 Revision Date:

**California Prop 65 Components** This product does not contain any chemicals known to 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.