Section 1. Product and Company Identification

**Product Name**  Genistein

**Product ID**  G1652

**Chemical Name**  Prunetol; Genisteol

**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**  Acute toxicity, Oral (Category 4), H302

**GHS Label elements including precautionary statements**

**Pictogram**

**Signal word**  Warning

**Hazard and precautionary statements**

*Hazard statement*
H302 - Harmful if swallowed.

*Precautionary statements*
P264 - Wash sin thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P330 - Rinse mouth.
P501 - Dispose of contents/container to an approved waste disposal plant.

**HMIS Classification**
Health hazard: 2
Chronic health hazard: *
Flammability: 0
Physical hazard: 0

**NFPA Rating**
Health hazard: 2
Fire hazard: 0
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 cause serious eye irritation.
Section 3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Substances</th>
<th>Formula</th>
<th>CAS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formular Wt.</td>
<td>270.24</td>
<td>446-72-0</td>
</tr>
<tr>
<td>EC No.</td>
<td>207-174-9</td>
<td></td>
</tr>
</tbody>
</table>

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 water as a precaution.

**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.

Section 5. Firefighting Measures

**Flash Point**
Not available.

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

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

**Unusual Fire Hazards**
Carbon oxides.

Section 6. Accidental Release Measures

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

**Environmental Precautions**
Do not let product enter drains.

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

Section 7. Handling and Storage

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

**Storage Conditions**
Store in a tightly closed container in a dry and well-ventilated place. Recommended storage temperature: -20°C.

**Hazardous Decomposition Products**
Not available.

**Other Remarks**
Storage class (TRGS 510): Noncombustible solids.
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**: Safety glasses with side-shields conforming to EN 166. 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: 0.11 mm, Breakthrough 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**: For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection, use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Section 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid</td>
<td>Pale yellow crystalline powder.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Boiling Point</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not available.</td>
<td>Not available.</td>
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</table>

<table>
<thead>
<tr>
<th>Melting Point</th>
<th>Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>297°C-298°C (slight dec.)</td>
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</table>

<table>
<thead>
<tr>
<th>Solubility</th>
<th>pH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soluble in acetone or ethanol. Insoluble in water.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Flash Point</th>
<th>Ignition temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lower explosion limit</th>
<th>Autoignition temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Upper explosion limit</th>
<th>Vapor pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Water solubility</th>
<th>Odor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insoluble in water.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Partition coefficient: n-octanol/water</th>
<th>Odor Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not available.</td>
<td>Not available.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Relative vapor density</th>
<th>Evaporation rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

Section 10. Stability and Reactivity

**Stability**

Stable under recommended storage conditions.

**Materials To Avoid**

Keep away from heat and strong oxidizing agents.

**Hazardous Decomposition Products**

Not available.
Section 11. Toxicological Information

Oral LD50
Mouse - 500 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
Human lymphocyte
Micronucleus test
Other cell types
DNA damage

Reproductive Toxicity
Not available.

Aspiration Hazard
Not available.

Specific organ toxicity
single exposure (GHS)
Not available.

Specific organ toxicity repeated exposure (GHS)
Not available.

Additional Information
RTECS: NR2392000
To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

Teratogenicity
Not available.

Synergistic effects
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 serious eye irritation.
Ingestion - Acute toxicity. 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

Toxicity
Not available.

Mobility in soil
Not available.

PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/ not
Section 13. Disposal Considerations

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

Persistence and degradability: Not available.

Bioaccumulative potential: Not available.

Other adverse effects: Not available.

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**
- Acute health hazard.

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

**Pennsylvania Right To Know Components**
- 5,7-Dihydroxy-3-(4-hydroxyphenyl)-4-benzopyrone
  - CAS #: 446-72-0
  - Revision Date:

**New Jersey Right To Know Components**
- 5,7-Dihydroxy-3-(4-hydroxyphenyl)-4-benzopyrone
  - CAS #: 446-72-0
  - 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.