**Section 1. Product and Company Identification**

**Product Name**  Catechin, 99%

**Product ID**  C0278

**Chemical Name**  Synonyms: Catechol; Catechinic acid; Dexcyanidanol; Cyanidol; Catergen

**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**
- Skin irritation (Category 2), H315
- Eye irritation (Category 2A), H319
- Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

---

**GHS Label elements including precautionary statements**

**Pictogram**

**Signal word**  Warning

**Hazard and precautionary statements**

- **Hazard statements**
  - H315 - Causes skin irritation.
  - H319 - Causes serious eye irritation.
  - H335 - May cause respiratory irritation.

- **Precautionary statements**
  - P261 - Avoid breathing dust, fumes, gas, mist, vapors, and spray.
  - P264 - Wash skin thoroughly after handling.
  - P271 - Use only outdoors or in a well-ventilated area.
  - P280 - Wear protective gloves, eye protection and face protection.
  - P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
  - P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
  - P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
  - P321 - Specific treatment (see supplemental first aid instructions on this label).
  - P332 + P313 - If skin irritation occurs: Get medical advice/attention.
  - P337 + P313 - If eye irritation persists: Get medical advice/attention.
  - P362 - Take off contaminated clothing and wash before reuse.
  - P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
  - P405 - Store locked up.
  - P501 - Dispose of contents/container to an approved waste disposal plant.

---

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

**NFPA Rating**
- Health hazard: 0
- Fire hazard: 0
- Reactivity hazard: 0

**Potential Health Effects**
- Inhalation - May be harmful if inhaled. May cause respiratory irritation. Specific target organ toxicity - single exposure.
- Skin - May be harmful if absorbed through skin. May cause skin irritation.
Section 3. Composition/Information on Ingredients

Substances

<table>
<thead>
<tr>
<th>Formula</th>
<th>CAS No.</th>
<th>Formula Wt.</th>
<th>EC No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C₁₅H₁₄O₆</td>
<td>154-23-4</td>
<td>290.27</td>
<td>205-825-1</td>
</tr>
</tbody>
</table>

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.

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 for firefighting if necessary.

Unusual Fire Hazards
Not available.

Section 6. Accidental Release Measures

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

Environmental Precautions
Do not let product enter drains.

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

Section 7. Handling and Storage

Handling
Provide a well-ventilated area at places where dust is formed.

Storage Conditions
Store in a tightly closed container in a dry and well-ventilated place at -20°C. This product is light sensitive.

Hazardous Decomposition Products
Carbon oxides.

Other Remarks
None.
Section 8. Exposure Controls/Personal Protection

Personal protective equipment

**EXPOSURE CONTROLS**

Contains no substances with occupational exposure limit values.

**General industrial hygiene practice.**

**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. Full and splash contact - Material: nitrile rubber. Minimum layer thickness: 0.11 mm, Break through time: 460 min. Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M).

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).

---

Section 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid.</td>
<td>Faintly brown 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>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Melting Point</th>
<th>Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>93°C-96°C</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Solubility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soluble in water and alcohol.</td>
</tr>
<tr>
<td>Soluble in acetone and ethanol.</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>
</tr>
</thead>
<tbody>
<tr>
<td>Soluble in water and alcohol.</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>
</tr>
</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.

**Materials To Avoid**

Strong oxidizing agents.

**Hazardous Decomposition Products**

Carbon oxides.
### Section 11. Toxicological Information

|           | Oral LD50 (Rat) | Oral LD50 (Mouse) | Dermal LD50 | Inhalation LC50 | Dermal LD50 | Dermal LD50 | Other information on acute toxicity | Reputative Toxicity | Specific organ toxicity single exposure (GHS) | Specific organ toxicity repeated exposure (GHS) | Teratogenicity | Aspiration Hazard | Synergistic effects | Germ cell mutagenicity | Skin corrosion/irritation | Serious eye damage/irritation | Respiratory or skin sensitization | Potential Health Effects | Additional Information | Signs and symptoms of exposure | Carcinogenicity |
|-----------|-----------------|-------------------|------------|-----------------|------------|------------|-------------------------------------|---------------------|--------------------------------------|---------------------------------------------|---------------|-------------------|------------------------|------------------------|------------------------|---------------------------|----------------------------|-----------------------|--------------------------|----------------------|
|           | > 10,000 mg/kg   | > 10,000 mg/kg     | Not available. | Not available.  | Not available.  | Not available. | Not available.                     | Not available.     | Not available.                       | Not available.                                           | Not available. | Not available.     | Not available.           | Not available.         | Not available.        | Not available.            | Inhalation - May be harmful if inhaled. May cause respiratory irritation. Specific target organ toxicity - single exposure. Skin - May be harmful if absorbed through skin. May cause skin irritation. Eyes - Causes serious eye irritation. Ingestion - May be harmful if swallowed. | RTECS: Not available. To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated. |

### Section 12. Ecological Information

<table>
<thead>
<tr>
<th></th>
<th>Toxicity</th>
<th>Mobility in soil</th>
<th>PBT and vPvB assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not available.</td>
<td>Not available.</td>
<td>PBT/vPvB assessment not available as chemical safety assessment not required/not</td>
</tr>
</tbody>
</table>
Section 13. Disposal Considerations

Waste Disposal
- Dispose of material according to all federal, state, and local regulations.
- Offer surplus and non-recyclable solutions to a licensed disposal company.
- Dispose of as unused product.

Section 14. Transport Information

DOT (US) Not dangerous goods.
IATA Not dangerous goods.
IMDG Not dangerous goods.

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 Cianidanol CAS No. 154-23-4 Revision Date: 1989-08-11

New Jersey Right To Know Components Cianidanol CAS No. 154-23-4 Revision Date: 1989-08-11

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

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.
For emergencies in the USA, call CHEMTREC 800-424-9300