Material Safety Data Sheet
Calcium Lactate

Section 1: Chemical Product and Company Identification

**Product Name:** Calcium Lactate Pentahydrate
**Chemical Name:** Calcium Lactate Pentahydrate
**CAS No.:** 63690-56-21, 814-80-2
**EINECS No.:**
**Customs Tariff No.:**
**Synonym Name:** 2-Hydroxypropanoic acid, calcium salt, pentahydrate; Lactic acid, calcium salt (2:1), pentahydrate
**Chemical Formula:** (CH3CHOHCOOH)2Ca . 5H2O

**Contact Information:**
**Chemtrade International**
Rm. 201, Unit 3, Building 8, Shijia Garden, No. 93, Xiangjiang Road, Qingdao Development Zone, Qingdao, Shandong, China 266555
**International Sales:**
Tel: 0086-532-86893005
Fax: 0086-532-86893005

Section 2: Composition and Information on Ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS No.</th>
<th>EINECS No.</th>
<th>by weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Lactate Pentahydrate</td>
<td>83690-56-21</td>
<td></td>
<td>98-100%</td>
</tr>
</tbody>
</table>

Section 3: Hazards Identification

**Emergency Overview:**
As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.

**SAF-T-DATA** (tm) Ratings (Provided here for your convenience)

- Health Rating: 1 - Slight
- Flammability Rating: 0 - None
- Reactivity Rating: 0 - None
- Contact Rating: 1 - Slight
- Lab Protective Equip: GOGGLES; LAB COAT; PROPER GLOVES
- Storage Color Code: Green (General Storage)

**Potential Health Effects**

**Inhalation:**
Not expected to be a health hazard. Can cause breathing difficulty if inhaled in large amounts.

**Ingestion:**
Not expected to be a health hazard via ingestion. Large amounts may produce gastric upset.

**Skin Contact:**
No adverse effects expected. May cause mild irritation and redness.

**Eye Contact:**
No adverse effects expected but dust may cause mechanical irritation.

**Chronic Exposure:**
No information found.

**Aggravation of Pre-existing Conditions:**
No information found.
Section 4: First Aid Measures

**Inhalation:**
Not expected to require first aid measures. Remove to fresh air. Get medical attention for any breathing difficulty.

**Ingestion:**
Not expected to require first aid measures. If large amounts were swallowed, give water to drink and get medical advice.

**Skin Contact:**
Not expected to require first aid measures. Wash exposed area with soap and water. Get medical advice if irritation develops.

**Eye Contact:**
Wash thoroughly with running water. Get medical advice if irritation develops.

Section 5: Fire and Explosion Data

**Fire:**
Not expected to be a fire hazard.

**Explosion:**
No information found.

**Fire Extinguishing Media:**
Use any means suitable for extinguishing surrounding fire.

**Special Information:**
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

Section 6: Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal.

Section 7: Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

Section 8: Exposure Controls/Personal Protection

**Airborne Exposure Limits:**
None established.

**Ventilation System:**
A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

**Personal Respirators (NIOSH Approved):**
For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.
Skin Protection:
Wear protective gloves and clean body-covering clothing.

Eye Protection:
Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

### Section 9: Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td>White crystalline powder</td>
</tr>
<tr>
<td><strong>Odor</strong></td>
<td>Faint odor</td>
</tr>
<tr>
<td><strong>Solubility</strong></td>
<td>Moderate (1-10%)</td>
</tr>
<tr>
<td><strong>Specific Gravity</strong></td>
<td>No information found.</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>No information found.</td>
</tr>
<tr>
<td><strong>% Volatiles by volume @ 21C</strong></td>
<td>0</td>
</tr>
<tr>
<td><strong>Boiling Point</strong></td>
<td>No information found.</td>
</tr>
<tr>
<td><strong>Melting Point</strong></td>
<td>No information found.</td>
</tr>
<tr>
<td><strong>Vapor Density (Air=1)</strong></td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Vapor Pressure (mm Hg)</strong></td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Evaporation Rate (BuAc=1)</strong></td>
<td>No information found.</td>
</tr>
</tbody>
</table>

### Section 10: Stability and Reactivity Data

**Stability:**
Stable under ordinary conditions of use and storage.

**Hazardous Decomposition Products:**
Carbon dioxide and carbon monoxide may form when heated to decomposition.

**Hazardous Polymerization:**
Will not occur.

**Incompatibilities:**
No information found.

**Conditions to Avoid:**
No information found.

### Section 11: Toxicological Information

No LD50/LC50 information found relating to normal routes of occupational exposure.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>NTP Carcinogen Known</th>
<th>NTP Carcinogen Anticipated</th>
<th>IARC Category</th>
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</thead>
<tbody>
<tr>
<td>Calcium Lactate (63690-56-21)</td>
<td>No</td>
<td>No</td>
<td>None</td>
</tr>
</tbody>
</table>

### Section 12: Ecological Information

**Environmental Fate:**
No information found.

**Environmental Toxicity:**
No information found.

### Section 13: Disposal Considerations
Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

### Section 14: Transport Information

Not regulated.

### Section 15: Other Regulatory Information

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**Chemical Inventory Status - Part 1**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>TSCA</th>
<th>EC</th>
<th>Japan</th>
<th>Australia</th>
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</thead>
<tbody>
<tr>
<td>Calcium Lactate (pentahydrate) (63690-56-21)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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**Chemical Inventory Status - Part 2**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Korea</th>
<th>DSL</th>
<th>NDSL</th>
<th>Phil.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Lactate (pentahydrate) (63690-56-21)</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

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**Federal, State & International Regulations - Part 1**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>RQ</th>
<th>TPQ</th>
<th>List</th>
<th>Chemical Catg.</th>
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</thead>
<tbody>
<tr>
<td>Calcium Lactate (pentahydrate) (63690-56-21)</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

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**Federal, State & International Regulations - Part 2**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CERCLA</th>
<th>261.33</th>
<th>8(d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Lactate (pentahydrate) (63690-56-21)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chemical Weapons Convention: No  TSCA 12(b): No  CDTA: No  SARA 311/312: Acute: No  Chronic: No  Fire: No  Pressure: No  Reactivity: No  (Pure / Solid)

**Australian Hazchem Code:** None allocated.

**Poison Schedule:** None allocated.

**WHMIS:**

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

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**Section 16: Other Information**
NFPA Ratings: Health: 1 Flammability: 0 Reactivity: 0

Label Hazard Warning:
As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.

Label Precautions:
None.

Label First Aid:
Not applicable.

Product Use:
Laboratory Reagent.

Revision Information:
MSDS Section(s) changed since last revision of document include: 3.

The information above is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The above details do not imply any guarantee concerning composition, properties or performance. Users should make their own investigations to determine the suitability of the information for their particular purposes.

Revised version dated: June 1, 2005