Material Safety Data Sheet

**Section 1-Chemical Product and Company Identification**

Trade Name of Product: Calcium lignosulfonate  
Synonym: Calcium lignosulfonate  
Chemical name: Lignosulfonate acid calcium salt  
Chemical Formula: not available

**Contact Information**

Headquarter  
Address: Lizeyayuan Apartment, South West Station Road, Fengtai District, Beijing, China  
Zip code: 100072  
Branch Address: West Xinluo St. High-tech Dist, Jinan, Shandong, China  
Email: info@greenagrochem.com  
Http://www.greenagrochem.com

**Section 2-Composition Information on Ingredients**

<table>
<thead>
<tr>
<th>Product Code</th>
<th>GAC-CaLS-1</th>
<th>GAC-CaLS-2</th>
<th>GAC-CaLS-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Light Yellow powder</td>
<td>Yellow Brown powder</td>
<td>Yellow Brown powder</td>
</tr>
<tr>
<td>PH value</td>
<td>4-7</td>
<td>5-7</td>
<td>5-7</td>
</tr>
<tr>
<td>Dry maters</td>
<td>95%min</td>
<td>95%min</td>
<td>95%min</td>
</tr>
<tr>
<td>Water-insoluble</td>
<td>1.5%max</td>
<td>2%max</td>
<td>2.5%max</td>
</tr>
<tr>
<td>Sulphate</td>
<td>2%min</td>
<td>2%min</td>
<td>2%min</td>
</tr>
<tr>
<td>Total Calcium&amp;magnesium( sulfate)</td>
<td>5%-8%</td>
<td>5%-8%</td>
<td>5%-6%</td>
</tr>
<tr>
<td>Lignosulphonate</td>
<td>55%min</td>
<td>50%min</td>
<td>50%min</td>
</tr>
<tr>
<td>Sugar</td>
<td>9%-10%</td>
<td>9%-12%</td>
<td>10-12%</td>
</tr>
<tr>
<td>Reducing Sugar</td>
<td>7%around</td>
<td>7%around</td>
<td>7%around</td>
</tr>
<tr>
<td>Ash</td>
<td>13%min</td>
<td>16%min</td>
<td>18%-21%</td>
</tr>
<tr>
<td>Bulk Density(kg/m3)</td>
<td>205</td>
<td>205</td>
<td>205</td>
</tr>
<tr>
<td>Moisture</td>
<td>7%Max</td>
<td>7%max</td>
<td>7%</td>
</tr>
</tbody>
</table>

CAS.8061-52-7

**Section 3-Hazards Identification**

Potential Acute Health Effects: no specific information available in our databank regarding the acute effect of this material for humans.  
Route of Entry: Eyes, Inhalation, Skin and Ingestion

**Section 4-First Aid Measures**

Inhalation: Remove person to fresh air and support breathing as needed, Seek medical attention if irritation persists.  
Ingestion: Seek medical attention or call a poison control center immediately.
Skin: No poisonous to skin. Remove contaminated clothing and wash before reusing. Flush skin with water, and then wash with soap and water. Seek medical attention if skin becomes irritated.
Eye: In such case flush eye immediately for at least 10 minutes. Get medical attention.

Section 5-Fire and Explosion Hazard Data
Flammability of the product: may be combustible at high temperature.
Flash point: Non-available
Flammable limits: Non-available
Product of combustion: Non-available
Special remarks on fire hazards: Non-available
Special remarks on explosion hazards: Non-available

Section 6-Accidental Release Measures
Small Spills: Clean up personnel should protect against mist inhalation and skin contact. Avoid generating mists. Spills when handling should be cleaned up immediately to prevent spreading.
Large Spills: use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evaluate through the sanitary system.

Section 7-Precautions for Safe Handling and Use
Precautions to be taken in handling and storing: Store in cool, dry areas away from children, feed and food products and sources of heat. Immediately clean up spills that occur during handling or storage.
Protect from freezing keep containers closed when not in use.

Section 8-Exposure Controls /Personal Protection
Occupational Exposure Limits:
No value assigned for this specific material by the New Zealand Occupational Safety and Health Service (OSH). However, Workplace Exposure Standard(s) for particulates: Particulates not otherwise classified: 8hr WES-TWA 10 mg/m3 (inhalable dust) or 3 mg/m3 (respirable dust) As published by the New Zealand Occupational Safety and Health Service (OSH).
WES - TWA (Workplace Exposure Standard - Time Weighted Average) - The eight-hour, time-weighted average exposure standard is designed to protect the worker from the effects of long-term exposure. These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Engineering controls:
Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Avoid generating and breathing in dusts. Use with local exhaust ventilation or while wearing dust mask. Keep containers closed when not in use.

Personal Protective Equipment:
The selection of PPE is dependant on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors. Orica Personal Protection Guide No. 1, 1998: E - OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES, DUSTMASK. Wear overalls, safety glasses and impervious gloves. Avoid generating and inhaling dusts. If excessive dust exists, wear dust mask/respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

**Section 9-Physical/Chemical Characteristics**

Physical state and appearance: Powder solid
Order: slight
Molecular weight: Not available
Color: yellow brown
Boiling point: Not available
Melting point: Not available
Critical temperature: Not available
Specific gravity: Not available
Vapor pressure: Not available
Vapor density: Not available
Solubility: easy soluble in cold water and hot water.

**Section 10-Reactivity Data**

Stability: Product stable at room temperature in closed containers under normal storage and handling conditions
Chemical Incompatibilities: Strong bases and Acids
Condition to avoid: Avoid excessive heat.

**Section 11-Toxicological Information**

Eye Effects: Irritation
Skin Effects: May cause irritation
Acute Inhalation Effects: Not Determined
Chronic Effects: No unusual chronic effects
Carcinogenicity: Not listed as carcinogenic

**Section 12-Environmental Information**

Soil Absorption/Mobility: Mobile in soil profile

**Section 13-Disposal Considerations**

Disposal: Dispose of in an approved landfill or apply at recommended label rates.
Disposal Regulatory Requirement: Follow applicable Federal, State and local regulations

**Section 14-Transport Information**

Not regulated by the DOT

**Section 15-Regulatory Information**

Sudden Release of Pressure: No
Immediate: YES
Fire: No
Delayed: No
Reactive: No
Section 16-Other

Disclaimer: All information appearing herein is based upon data obtained from manufacturers and/or recognized technical sources. While the information is believed to be accurate, we make no representations as to its accuracy or sufficiency.