Section 1. Product and Company Identification

Product Name: Lignin

Parchem - fine & specialty chemicals
415 Huguenot Street
New Rochelle, NY 10801
(914) 654-6800 (914) 654-6899 parchem.com info@parchem.com

Section 2. Hazards Identification

Classification of the substance or mixture
GHS Classification: Combustible Dust

GHS Label Elements
Pictograms: N/A
Signal word: WARNING

Hazard and precautionary statements
Combustible dust.
May form combustible dust concentrations in air.

Other Hazards: None

Section 3. Composition / Information on Ingredients

Common Name: Lignin

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>CAS NUMBER</th>
<th>CONCENTRATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Lignosulfonate</td>
<td>8061-52-7</td>
<td>1 – 100%</td>
</tr>
<tr>
<td>Sodium Lignosulfonate</td>
<td>8061-51-6</td>
<td>1 – 100%</td>
</tr>
<tr>
<td>Ammonium Lignosulfonate</td>
<td>8061-53-8</td>
<td>1 – 100%</td>
</tr>
</tbody>
</table>

Section 4. First Aid Measures

Description of First Aid Measures

Eye: Flush with plenty of water. Obtain medical attention if irritation persists.

Skin: No first aid should be needed. Wash off with soap and water. Get medical attention if irritation develops.

Inhalation: No first aid should be needed. If irritation develops, remove victim to fresh air. Get medical attention if irritation persists.

Ingestion: No first aid should be required. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if large amount is swallowed.
Most Important symptoms and effects, both acute and delayed: Poses little or no health hazard. May cause mechanical eye and skin irritation. Inhalation of dust may cause nose and throat irritation, coughing and sneezing. Ingestion may cause gastric upset and nausea.

Indication of any immediate medical attention and special treatment needed: None required.

Section 5. Firefighting Measures

Extinguishing Media: Use any extinguishing media that is suitable for the surrounding fire.

Specific Hazards Arising from the Chemical

Unusual Fire and Explosion Hazards: Dust generated in cutting or other processing of this material may present a potential fire and explosion hazard if suspended in air at high concentrations. Settled dust presents a fire hazard. Re-suspension of the dust into the air by vibration, traffic, material handling, etc. in high concentrations in the presence of an ignition source could result in a dust explosion. Minimize the generation and accumulation of dust.

Hazardous Decomposition Products: Combustion may produce sulfur dioxide and carbon and nitrogen oxides.

Special Protective Equipment and Precautions for Firefighters: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing.

Section 6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures: Wear appropriate protective equipment. Avoid creating and breathing dust. Eliminate ignition sources.

Environmental Precautions: Avoid unintentional release to the environment.

Methods and Material for Containment and Cleaning Up: Wet down and collect in a manner to minimize the generation of airborne dusts or vacuum with a high efficiency vacuum cleaner. If a vacuum is used, explosion proof equipment is required. Non-sparking tools should be used. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentrations. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air.).

Reference to Other Sections: Refer to Section 8 for protective equipment. Refer to Section 13 for disposal guidance.

Section 7. Handling and Storage

Precautions for Safe Handling: Avoid contact with eyes, skin and clothing. Avoid creating and breathing dusts. Wear protective clothing and equipment as described in Section 8. Use only with adequate ventilation. Wash thoroughly with soap and water after handling. Minimize the generation and accumulation of dust. Keep dust away from open flames, hot surfaces and sources of ignition. Follow good housekeeping practices to keep surfaces, including areas overhead such as piping,
drop ceilings, ductwork, etc. free from settled dust. Dry powders can build static electricity charges when subjected to friction of transfer and in mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.

Empty containers retain product residues. Follow all SDS precautions in handling empty containers. **Conditions for Safe Storage, Including any Incompatibilities:** Keep containers closed when not in use.

### Section 8. Exposure Controls / Personal Protection

#### Exposure Limits

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Lignosulfonate</td>
<td>None Established</td>
</tr>
<tr>
<td>Sodium Lignosulfonate</td>
<td>None Established</td>
</tr>
<tr>
<td>Ammonium Lignosulfonate</td>
<td>None Established</td>
</tr>
</tbody>
</table>

Refer to local regulations for specific requirements.

**Exposure Controls**

**Engineering Controls:** Use with adequate general or local ventilation to minimize airborne exposures. Provide local exhaust ventilation where product is used in a manner that generates dust. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust handling systems (such as exhaust ducts, dust collectors, vessels and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.

**Eye and Face:** Follow facility requirements. Dust goggles recommended for dusty conditions.

**Skin:** None required. Work gloves may be used to protect against mechanical irritation.

**Respiratory:** If exposures are excessive or irritation is experienced, wear an approved particulate respirator. Selection of respiratory protection depends on the contaminant type, form and concentration. Select and use in accordance with all applicable regulations (in the US follow OSHA 1910.134) and good Industrial Hygiene practice.

**Protective Clothing:** Appropriate protective clothing as needed to minimize skin contact.

**Work Hygienic Practices:** Wash thoroughly after handling.

### Section 9. Physical and Chemical Properties

**Physical State:** Solid

**Appearance:** Light tan to dark brown powder

**Odor:** Burnt coffee or woody odor

**Odor Threshold:** Not applicable

**pH:** 4.5 – 6.5 (Aqueous Solution)

**Relative Density:** 0.37 – 0.56 g/ml
**Boiling Point:** Not applicable  
**Melting Point:** Not applicable  
**Vapor Pressure:** Not applicable  
**Water Solubility:** 100%  
**Vapor Density:** Not applicable  
**Evaporation Rate:** Not applicable  
**Viscosity:** Not applicable  
**Pour Point:** Not applicable  
**Flash Point:** Not applicable  
**Flammable Limits:** LEL: 0.2 oz/cu. ft.  
**Auto-ignition Temperature:** None  
**Flammable Limits:** UEL: 3.5 oz/cu ft  
**Percent Volatile:** 0%  
**Flammability (Solid/Gas):** Ignition Temperature: 400°C  
**Partition Coefficient (n-Octanol/Water):** Not applicable  
**Decomposition Temperature:** None  
**Explosive Properties:** None  
**Oxidizing Properties:** None

### Section 10. Stability and Reactivity

**Reactivity:** Not reactive  
**Chemical Stability:** Stable under normal conditions.  
**Possibility of Hazardous Reactions:** None known.  
**Conditions to Avoid:** Keep away ignition sources.  
**Incompatible Materials:** Avoid strong acids and oxidizing agents.  
**Hazardous Decomposition Products:** Thermal decomposition may produce sulfur dioxide and carbon and nitrogen oxides.

### Section 11. Toxicological Information

**Information on Toxicological Effects**  
**Eye:** May cause temporary discomfort.  
**Skin:** No hazardous effects expected.  
**Skin Absorption:** No evidence of adverse effects from available information.  
**Ingestion:** May cause gastrointestinal discomfort if ingested in large quantities.  
**Inhalation:** No hazardous effects expected.  
**Chronic Toxicity:** No adverse effects expected.

**Acute Toxicity Data**  
**Calcium Lignosulfonate:** No toxicity data available  
**Sodium Lignosulfonate:** No toxicity data available  
**Ammonium Lignosulfonate:** No toxicity data available
Skin corrosion/irritation: No data available. This product is not expected to cause skin irritation.

Eye damage/irritation: No data available. This product is not expected to cause eye irritation.

Skin Sensitization: No data available. This product is not expected to cause skin sensitization in humans.

Respiratory Sensitization: No data available. This product is not expected to be a respiratory sensitizer based on human experience.

Germ Cell Mutagenicity: No data available. This product is not expected to cause mutagenic activity.

Carcinogenicity: No data available. This product is not listed as a carcinogen by IARC, NTP or OSHA.

Developmental/Reproductive Toxicity: No data available. This product is not expected to cause adverse effects on reproduction or development.

Specific Target Organ Toxicity (Single Exposure): No data available.

Specific Target Organ Toxicity (Repeated Exposure): No data available. This product is not expected to cause toxic effects on repeated exposure.

Section 12. Ecological Information

Toxicity: No data available. This product is not expected to be toxic to aquatic organisms.

Persistence and Degradability: No data available.

Bioaccumulative Potential: Not expected to bioaccumulate.

Mobility in Soil: No mobility in soil is expected.

Other Adverse Effects: None known

Section 13. Disposal Considerations

Waste Treatment Methods: Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.

Section 14. Transport Information

US DOT: Not regulated
EU ADR/RID: Not regulated
IMDG: Not regulated

Section 15. Regulatory Information

Safety, Health, and Environment Regulations
US Regulations
EPA SARA 311/312 Hazard Classification: Not Hazardous
EPA SARA 313: This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements under SARA Title III, Section 313 (40 CFR 372): None
Protection of Stratospheric Ozone: This product is not known to contain or to have been manufactured with ozone depleting substances as defined in 40 CFR Part 82, Appendix A to Subpart
A.  

**CERCLA Section 103:** This product is not subject to CERCLA spill reporting requirements. Many states have more stringent release reporting requirements. Report spills when required under federal, state and local regulations.  

**California Proposition 65:** This product is not known to contain chemicals regulated under Proposition 65.  

**Canadian Regulations**  

**Canadian WHMIS:** Not a controlled product. This product has been classified in accordance with the hazard criteria in the CPR and the MSDS contains all the information required by the CPR.  

**Chemical Inventories:**  

**US TSCA:** All of the components of this material are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory or are exempt.  

**Canadian CEPA:** All of the components are listed on the Canadian DSL or are exempt.  

**Australia:** All of the components are listed on the AICS inventory or are exempt.  

**China:** All the components are listed on the Chinese chemical inventory or are exempt.  

**Philippines:** All the components are listed in the Philippine Inventory.  

**New Zealand:** All of the components are listed on the New Zealand Inventory of Chemicals.  

**Korea:** All of the components are listed on the Korean Existing Chemicals Inventory  

**Japan:** All the components are listed on the Japan Inventory of existing chemicals.  

---

**Section 16. Other Information**  

**Disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.  

**REVISION DATE:** 6/30/2016