# MATERIAL SAFETY DATA SHEET

## Section I: Product Information

**Identity:** SPODUMENE

**Synonyms/ Trade Names:**
- SPODUMENE CONCENTRATE
- MIXTURE OF NATURALLY OCCURRING SILICATES AND QUARTZ.

**Revision Date:** 03/2007

## Section II: Hazardous Ingredients

<table>
<thead>
<tr>
<th>Chemical Name:</th>
<th>CAS #</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lithium Aluminum Silicate LiAl(Si2O6)</td>
<td>12068-40-5</td>
<td>10 mg/m³</td>
<td>0.05 mg/m³</td>
<td>60-80</td>
</tr>
<tr>
<td>Quartz (SiO2)</td>
<td>14808-60-7</td>
<td>10 mg/m³</td>
<td>0.05 mg/m³</td>
<td>20-40</td>
</tr>
</tbody>
</table>

## Section III: Physical Data

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point:</td>
<td>NA</td>
</tr>
<tr>
<td>Specific Gravity (H₂O=1):</td>
<td>3.1</td>
</tr>
<tr>
<td>Melting Point:</td>
<td>1375°C</td>
</tr>
<tr>
<td>Evaporation Rate (Butyl Acetate=1):</td>
<td>NA</td>
</tr>
<tr>
<td>Solubility in Water:</td>
<td>&lt; 0.5%</td>
</tr>
<tr>
<td>Appearance and Odor:</td>
<td>White to beige powder, Odorless</td>
</tr>
</tbody>
</table>

## Section IV: Fire and Explosion Hazard Data

- **Flash Point:** Not combustible
- **Flammable Limits:** LEL NA UEL NA
- **Extinguishing Media:** As appropriate for surrounding combustibles.
- **Special Fire Fighting Procedures:**
  - In the event of fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.
- **Unusual Fire and Explosion Hazards:** Not combustible.

## Section V: Reactivity Data

- **Stability:** Stable under ordinary conditions of use and storage.
- **Conditions to Avoid:** None known.
- **Incompatibility (materials to avoid):** None known.
- **Hazardous Decomposition or Byproducts:** None known.
- **Hazardous Polymerization:** Will not occur.

## Section VI: Health Hazard Data

**Route of Entry:**
- **INHALATION:** May cause irritation of mucous membrane if dust is inhaled over a prolonged period of time. Prolonged exposure to silica dust may result in silicosis, a fibrotic lung disease.
- **SKIN:** No.
- **INGESTION:** Ingestion may cause abdominal pain and nausea.

**Health Hazard Data (cont.)**

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Health Hazards (Acute and Chronic): Respiratory disease may result from prolonged overexposure. Can cause eye irritation.

Carcinogenicity:
NTP: Yes (Silica)  IARC Monographs: Yes (Silica)

Signs and Symptoms of Exposure:
Excessive inhalation of dust may result in shortness of breath and reduced pulmonary function. Symptoms of silicosis include impaired pulmonary function and wheezing.

Aggravation of Pre-existing Conditions: Persons with impaired respiratory function may be more susceptible to the effect of this substance.

Emergency and First Aid Procedures:
IF INHALED, remove to fresh air and seek medical attention for any breathing difficulty.
IN CASE OF SKIN CONTACT, wash with soap & water. Seek medical attention if red & irritated.
IN CASE OF EYE CONTACT, flush eyes immediately with water for at least 15 minutes. Seek medical attention if irritation persists.
IF INGESTED, induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. Call a physician immediately.

Section VII: Precautions for Safe Handling and Use

Material Release or Spill Precautions: Should a spill occur, ventilate area. Clean-up personnel require respiratory protection. Recover uncontaminated material for use. Vacuum or sweep remaining material, keeping dust to a minimum.

Waste Disposal Method: Dispose of unreclaimable material in a RCRA-approved waste facility.

Handling and Storing Precautions: Protect containers from damage and keep closed when not in use. Observe good personal hygiene. Wash after handling.

Other Precautions:

Section VIII: Control Measures

Respiratory Protection: Use NIOSH approved particulate respirator if dust generation occurs or is anticipated. OSHA standard 1910.134 or ANSI Z88.2-1980 specifications are recommended.

Ventilation:
A system of local and/or general exhaust is recommended to keep employee exposures below the airborne exposure limits. Local exhaust 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.

Protective Gloves: Yes

Eye Protection: Safety goggles are recommended.

Other Protective Clothing or Equipment: Use other protective equipment when necessary in order to avoid prolonged exposure to skin.