# MATERIAL SAFETY DATA SHEET

## 1. IDENTIFICATION

**Chemical Name:** Sulfur

**Chemical Family:**

- **CAS #:** 7704-34-9
- **CAS Name:** Sulfur
- **Synonyms / Common Name:** Sulfur
- **DOT Information:** DOT exempt when in 50 lb bags

## 2. PHYSICAL DATA

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Color:</strong></td>
<td>Yellow</td>
</tr>
<tr>
<td><strong>State:</strong></td>
<td>Powder</td>
</tr>
<tr>
<td><strong>Odor Characteristics:</strong></td>
<td>Sulfur</td>
</tr>
<tr>
<td><strong>pH:</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Viscosity:</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Specific Gravity (Water = 1):</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Vapor Density (Air = 1):</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Vapor Pressure:</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Melting Point:</strong></td>
<td>246 Deg. F</td>
</tr>
<tr>
<td><strong>Boiling Point:</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Flash Point:</strong></td>
<td>374 Deg. F</td>
</tr>
<tr>
<td><strong>Freezing Point:</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Percent Volatility:</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Evaporation Rate (BAc = 1):</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Solubility in Water:</strong></td>
<td>Insoluble</td>
</tr>
<tr>
<td><strong>Solubility in Oil:</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Solubility in Acetone:</strong></td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

## 3. INGREDIENTS - HAZARDOUS

<table>
<thead>
<tr>
<th>Material / Components</th>
<th>CAS #: 7704-34-9</th>
<th>CAS Name</th>
<th>TLV Units</th>
<th>Approx. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfur</td>
<td></td>
<td></td>
<td></td>
<td>98</td>
</tr>
</tbody>
</table>

## 4. FIRE AND EXPLOSION HAZARD DATA

### Flash Point

- **Flash Point:** 374 Deg. F (Dust)

### Extinguishing Media

- Water Fog.

### Special Fire Fighting Procedures

- Fight fire upwind. Wear positive pressure self-contained breathing apparatus and full personal protective equipment. Avoid solid streams of water which may stir dust clouds or spread fire. Do not breathe smoke or spray mist.

### Unusual Fire & Explosion Hazards

- Combustion of sulfur generates toxic sulfur dioxide which is irritating to the respiratory tract and may cause breathing difficulty and pulmonary edema.
5. HEALTH HAZARD DATA

Threshold Limit Value:

Effects of Overexposure:

Inhalation: Will cause breathing problems - shortness of breath and coughing.

Skin Contact: May cause skin irritation.

Eye Contact: Sulfur will cause eye irritation. Do not rub eyes if exposed.

Ingestion: May cause nausea, vomiting and diarrhea

Delayed Effects: Preexisting conditions involving the above symptoms can be aggravated by exposure.

Medical Conditions Aggravated by Exposure

6. FIRST AID MEASURES

Inhalation: Remove victim to fresh air, and administer CPR if necessary. Get medical attention

Skin Contact: Remove contaminated clothing and wash with soap and water. If rash persist, Get medical attention

Eye Contact: Irrigate eyes a minimum of 15 minutes with water. Get medical attention

Ingestion: If ingested, give several glasses of water and induce vomiting. Never give fluid to an unconscious person. Get medical attention.

NOTES TO PHYSICIAN:

7. REACTIVITY DATA

Stability: Stable

Incompatibility: Bases, Oxidizers, Powdered carbon.

(materials to avoid)

Hazardous Combustion or Decomposition Products: COx, SOx, H2S

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Bases, Oxidizers, Powdered carbon, open flames.

8. SPILL OR LEAK PROCEDURES

Actions to take for Leaks & Spills: Do not use flares in area. Wear appropriate eye protection. Control dust with water fog. Sweep into disposal container.

Waste Disposal Method: Dispose of in accordance with federal, state, and local regulations.
9. SPECIAL PROTECTION INFORMATION

Respiratory Protection: Respiratory protection is required. Use only NIOSH/MSHA approved respiratory protection. Positive pressure self-contained breathing apparatus should be used for confined space entry and high exposures.

Eye Protection: Safety goggles or glasses with side shields and brow protection.

Skin Protection: Chemical resistant gloves and long-sleeved coveralls.

Other Clothing: Wear long sleeved shirt, pants, and shoes plus socks.

Other Equipment: Eye wash station should be nearby.

Engineering Controls:

10. HANDLING AND STORAGE

Special Precautions: Keep out of reach of children. Read and follow all label instructions. Sulfur dust can be explosive. Do not allow dust to build up. Keep clear of ignition sources.

Other Precautions:

11. REGULATORY INFORMATION

Workplace Classification: Caution

12. TOXICOLOGICAL INFORMATION

Acute Data: Oral toxicity (rat) LD50 > 5000 mg/kg

Reproductive / Teratology Data: None known

13. ECOLOGICAL INFORMATION

Fate in the Environment: Not known

14. DISPOSAL CONDITIONS

Procedures: Dispose of unrecoverable material in accordance with Federal, State, and Local Regulations.

15. TRANSPORTATION INFORMATION

DOT Classification: DOT exempt when sulfur is in 50 lb bags.

Warning Labels: