Section 1. Product and Company Identification

**Product Name** R,S-Sulforaphane
**Product ID** S8044
**Chemical Name** (Synonyms) D,L-Sulforaphane

**Supplier** LKT Laboratories, Inc
545 Phalen Blvd.
St. Paul, MN 55130 USA
Ph: 651-644-8424 Fax: 651-644-8357
www.lktlabs.com - getinfo@lktlabs.com

**Emergency Phone #** 1-800-424-9300

Section 2. Hazards Identification

**GHS Classification** Not a hazardous substance or mixture.

**HMIS Classification**
- Health hazard: 0
- Flammability: 0
- Physical hazard: 0

**NFPA Rating**
- Health hazard: 0
- Fire hazard: 0
- Reactivity hazard: 0

**Potential Health Effects**
- Inhalation: May be harmful if inhaled.
- Skin: May be harmful if absorbed through skin.
- Eyes: May cause eye irritation.
Ingestion: May be harmful if swallowed.

Section 3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Substances</th>
<th>Formula</th>
<th>CAS No.</th>
<th>Formula Wt.</th>
<th>EC No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C₆H₁₁NOS₂</td>
<td>4478-93-7</td>
<td></td>
<td>177.29</td>
<td></td>
</tr>
</tbody>
</table>

Section 4. First Aid Measures

General advice

Eye Contact  
Flush eyes with water as a precaution.

Skin Contact  
Wash off with soap and plenty of water.

Inhalation  
If breathed in, move person into fresh air. If not breathing, give artificial respiration.

Ingestion  
Never give anything by mouth to an unconscious person. Rise mouth with water.

Section 5. Firefighting Measures

Flash Point  
Not available.

Extinguishing Media  
Water spray, alcohol-resistant foam, dry chemical powder, or carbon dioxide.

Firefighting Procedures  
Wear self-contained breathing apparatus and for firefighting if necessary.

Unusual Fire Hazards  
Carbon oxides, nitrogen oxides (NOx), and sulfur oxides.

Section 6. Accidental Release Measures

Personal Precautions  
Avoid breathing vapors, mist, or gas.

Environmental Precautions  
Do not let product enter drains.

Methods and materials for containment and cleanup  
Keep in suitable, closed containers for disposal.

Section 7. Handling and Storage

Handling  
Normal measures for preventive fire protection.

Storage Conditions  
Keep container tightly closed in a dry and well-ventilated place. Containers which are opened, must be carefully resealed and kept upright to prevent leakage.

Hazardous Decomposition Products  
Not available.

Other Remarks  
None.
Section 8. Exposure Controls/Personal Protection

**Personal protective equipment**

**EXPOSURE CONTROLS**
- Contains no substances with occupational exposure limit values.
- General industrial hygiene practice.

**PERSONAL PROTECTION**
- **Eye/face protection:** Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).
- **Skin protection:** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
- **Body Protection:** Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
- **Respiratory protection:** Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Section 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Liquid.</td>
</tr>
<tr>
<td>Color</td>
<td>Slightly yellowish liquid.</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>125°C-135°C</td>
</tr>
<tr>
<td>Volatility</td>
<td>Not available.</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Density</td>
<td>Not available.</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in ethanol, DMSO 20mg/mL, methanol, or ethyl acetate. Also soluble in water.</td>
</tr>
<tr>
<td>pH</td>
<td>Not available.</td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>Not available.</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not available.</td>
</tr>
<tr>
<td>Water solubility</td>
<td>Soluble in water.</td>
</tr>
<tr>
<td>Odor</td>
<td>Not available.</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not available.</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not available.</td>
</tr>
<tr>
<td>Relative vapor density</td>
<td>Not available.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

Section 10. Stability and Reactivity

**Stability**
- Stable under recommended storage conditions for 2 years. Avoid prolonged contact with moisture and freeze thaw cycles.

**Materials To Avoid**
- Strong acids, strong bases.

**Hazardous Decomposition Products**
- Not available.
Section 11. Toxicological Information

**Oral LD50** Not available.

**Inhalation LC50** Not available.

**Dermal LD50** Not available.

**Other information on acute toxicity** Not available.

**Skin corrosion/irritation** Not available.

**Serious eye damage/irritation** Not available.

**Respiratory or skin sensitization** Not available.

**Germ cell mutagenicity** Not available.

**Reproductive Toxicity** Not available.

**Aspiration Hazard** Not available.

**Specific organ toxicity single exposure (GHS)** Not available.

**Specific organ toxicity repeated exposure (GHS)** Not available.

**Teratogenicity** Not available.

**Synergistic effects** Not available.

**Additional Information** RTECS: Not available.

To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

**Potential Health Effects** Inhalation: May be harmful if inhaled. Skin: May be harmful if absorbed through skin. Eyes: May cause eye irritation. Ingestion: May be harmful if swallowed.

**Carcinogenicity**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Section 12. Ecological Information

**Toxicity** Not available.

**Mobility in soil** Not available.

**PBT and vPvB assessment** PBT/vPvB assessment not available as chemical safety assessment not required/ not
Persistence and degradability  Not available.  
Bioaccumulative potential  Not available.  
Other adverse effects  Not available. 

Section 13. Disposal Considerations 
Waste Disposal  Dispose of material according to all federal, state, and local regulations. Contact a licensed professional waste disposal service to dispose of this material. Dispose of as unused product. 

Section 14. Transport Information 
DOT (US)  Not dangerous goods. 
IATA  Not dangerous goods. 
IMDG  Not dangerous goods. 

Section 15. Regulatory Information 
Reach No. 
SARA 302 Components  SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302. 
SARA 313 Components  SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313. 
SARA 311/312 Components  No SARA hazards. 

Massachusetts Right To Know Components  No components are subject to the Massachusetts Right to Know Act. 
Pennsylvania Right To Know Components  R,S-Sulforaphane  CAS #: 4478-93-7  Revision Date: 
New Jersey Right To Know Components  R,S-Sulforaphane  CAS #: 4478-93-7  Revision Date: 
California Prop 65 Components  This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm. 

Section 16. Other Information 
Other information  The information in this document is believed to be correct but is not necessarily complete. LKT does not guarantee the accuracy of the information. The burden of verifying the information in this document rests solely upon the user.
For emergencies in the USA, call CHEMTREC 800-424-9300