Safety Data Sheet

Section 1. Product and Company Identification

Product Name: Systemin
Product ID: S9775

Chemical Name (Synonyms):

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.

GHS Label elements including precautionary statements

Pictogram

Signal word: None.

Hazard and precautionary statements:
Not a hazardous substance or mixture.

HMIS Classification: Not classified.

NFPA Rating: Not classified.

Potential Health Effects:
Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.
Skin: May be harmful if absorbed through skin. Causes skin irritation.
Eyes: May cause eye irritation.
Section 3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Substances</th>
<th>Ingredient: Title Compound</th>
<th>Percent: 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula</td>
<td>C_{85}H_{144}N_{26}O_{28}S</td>
<td>2010.32</td>
</tr>
<tr>
<td>CAS No.</td>
<td>137181-56-7</td>
<td>EC No.</td>
</tr>
</tbody>
</table>

Section 4. First Aid Measures

**General advice**
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**Eye Contact**
Remove contact lenses. Flush with water for at least 15 minutes and seek medical attention immediately.

**Skin Contact**
Wash with soap and water for 15 minutes and seek medical attention immediately. Wash contaminated clothing before use.

**Inhalation**
Remove from exposure and provide respiration support if necessary. Seek medical attention.

**Ingestion**
Rinse mouth with water. Contact a physician or poison control immediately.

Section 5. Firefighting Measures

**Flash Point**
Not available.

**Extinguishing Media**
Water spray, dry chemical powder, carbon dioxide, polymer foam.

**Firefighting Procedures**
Wear self-contained breathing apparatus and protective clothing.

**Unusual Fire Hazards**
May emit toxic fumes.

Section 6. Accidental Release Measures

**Personal Precautions**
Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

**Environmental Precautions**
Do not let product enter drains.

**Methods and materials for containment and cleanup**
Use appropriate tools to collect material and dispose of in waste container. Avoid raising dust. Ventilate the area and wash spill site after material has been removed.

Section 7. Handling and Storage

**Handling**
Wear gloves, goggles, and lab coat when handling this material. Use in a well ventilated area. Use only in a chemical fume hood. Wash thoroughly after handling material.

**Storage Conditions**
Store in a tightly sealed container. Recommended storage temperature: -20°C

**Hazardous Decomposition Products**
Not available.

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

**Personal protective equipment** Contains no substances with occupational exposure limit values.

**Respiratory Protection:** Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand 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.

**Eye Protection:** Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

**Skin and Body Protection:** Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Section 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Color</th>
<th>Not available.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Solubility</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Relative vapor density</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
<td></td>
</tr>
</tbody>
</table>

Section 10. Stability and Reactivity

**Stability** Stable under proper storage conditions.

**Materials To Avoid** Keep away from heat and strong oxidizing agents.

**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.
**Synergistic effects**  Not available.
**Specific organ toxicity repeated exposure (GHS)**  Not available.
**Teratogenicity**  Not available.
**Additional Information**  Not available.

**Signs and symptoms of exposure**  Not available.

**Potential Health Effects**

- Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.
- Skin: May be harmful if absorbed through skin. Causes skin irritation.
- 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**  Not available.
Section 13. Disposal Considerations
Waste Disposal
Dispose of material according to all federal, state, and local regulations. Offer material to a licensed, professional waste disposal company to dispose of as unused product.

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

Further Information

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 II, 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 Systemin CAS #: 137181-56-7 Revision Date:
New Jersey Right To Know Components Systemin CAS #: 137181-56-7 Revision Date:
California Prop 65 Components This product does not contain any chemicals known to 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