Section 1. Product and Company Identification

- **Product Name**: Diallyl trisulfide
- **Product ID**: D3202
- **Chemical Name (Synonyms)**: Allyl trisulfide; DATS
- **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**: Acute toxicity, Oral (Category 3), H301

**GHS Label elements including precautionary statements**

- **Pictogram**: 
- **Signal word**: Danger
- **Hazard and precautionary statements**
  - **Hazard statement**: H301 - Toxic if swallowed.
  - **Precautionary statements**:
    - P264 - Wash skin thoroughly after handling.
    - P270 - Do not eat, drink or smoke when using this product.
    - P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
    - P321 - Specific treatment (see supplemental first aid instructions on this label).
    - P330 - Rinse mouth.
    - P405 - Store locked up.
    - P501 - Dispose of contents/container to an approved waste disposal plant.

**HMIS Classification**
- Health hazard: 2
- Chronic health hazard: 0
- Flammability: 0
- Physical hazard: 0

**NFPA Rating**
- Health hazard: 2
- Fire hazard: 0
- Reactivity hazard: 0

**Potential Health Effects**
- Inhalation - May be harmful if inhaled. May cause respiratory irritation.
- Skin - May be harmful if absorbed through skin. May cause skin irritation.
- Eyes - May cause eye irritation.
Inhalation - If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Ingestion - Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Hazardous Decomposition Products - Not available.

Other Remarks - None.

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. The recommended storage temperature: -20°C.

Handling - Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

Environmental Precautions - Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleanup - Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

Section 5. Firefighting Measures

Flash Point - Not available.

Extinguishing Media - Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

Firefighting Procedures - Wear self-contained breathing apparatus for fire fighting if necessary.

Unusual Fire Hazards - Not available.

Section 6. Accidental Release Measures

Personal Precautions - Wear respiratory protection. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Section 7. Handling and Storage

Handling - Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

Section 3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Substances</th>
<th>Formula Wt.</th>
<th>CAS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula</td>
<td>C₆H₁₀S₃</td>
<td>2050-87-5</td>
</tr>
<tr>
<td></td>
<td>178.34</td>
<td></td>
</tr>
<tr>
<td>EC No.</td>
<td>218-107-8</td>
<td></td>
</tr>
</tbody>
</table>

Section 4. First Aid Measures

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

Eye Contact - Flush eyes with water as a precaution.

Skin Contact - Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

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

Ingestion - Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Section 8. Exposure Controls/Personal Protection

Personal protective equipment
EXPOSURE CONTROLS
Contains no substances with occupational exposure limit values.
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

PERSONAL PROTECTION
Eye/face protection: Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) of 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: 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.
Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) 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).

Section 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Liquid. (Synthetic)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Clear.</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>92°C Density = 1.116g/ml</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 acetone. Slightly soluble in ethanol, DMSO, and 2-propanol.</td>
</tr>
<tr>
<td>pH</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flash Point</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>Not available.</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>Relative vapor density</td>
<td>6.16 - (Air = 1.0)</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. This is a synthetic product.

Materials To Avoid
Strong oxidizing agents.

Hazardous Decomposition Products
Not available.
Section 11. Toxicological Information

**Oral LD50**  
Mouse - 100.0 mg/kg

**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.

**Potential Health Effects**  
Inhalation - May be harmful if inhaled. May cause respiratory irritation.  
Skin - May be harmful if absorbed through skin. May cause skin irritation.  
Eyes - May cause eye irritation.  
Ingestion - Acute toxicity. Toxic 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. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Dispose of as unused product.

Section 14. Transport Information

**DOT (US)**

- UN number: 2810
- Class: 6.1
- Packing group: III
- Proper shipping name: Toxic, liquids, organic, n.o.s. (Diallyl trisulfide)
- Reportable Quantity (RQ)
- Marine pollutant: No
- Poison Inhalation Hazard: No

**IATA**

- UN number: 2810
- Class: 6.1
- Packing group: III
- Proper shipping name: Toxic, liquids, organic, n.o.s. (Diallyl trisulfide)

**IMDG**

- UN number: 2810
- Class: 6.1
- Packing group: III
- EMS-No: F-A, S-A
- Proper shipping name: TOXIC LIQUID, ORGANIC, N.O.S. (Diallyl trisulfide)
- Marine pollutant: No

Further Information

Section 15. Regulatory Information

**Reach No.**

A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

**SARA 302 Components**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**

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**

Acute health hazard.

**Massachusetts Right To Know Components**

No components are subject to the Massachusetts Right to Know Act.

**Pennsylvania Right To Know Components**

Diallyl trisulfide  CAS-No. 2050-87-5  Revision Date

**New Jersey Right To Know Components**

Diallyl trisulfide  CAS-No. 2050-87-5  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