Material Safety Data Sheet
Date Printed: 06/23/2000
Date Updated: 02/25/2000
Version 1.10

Section 1 - Product and Company Information

<table>
<thead>
<tr>
<th>Product Name</th>
<th>ACETONE-D6, 99.5 ATOM % D (CONTAINS 1% V/V TMS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Number</td>
<td>185973</td>
</tr>
<tr>
<td>Brand</td>
<td>Aldrich Chemical</td>
</tr>
<tr>
<td>Company</td>
<td>Sigma-Aldrich</td>
</tr>
<tr>
<td>Street Address</td>
<td>3050 Spruce Street</td>
</tr>
<tr>
<td>City, State, Zip, Country</td>
<td>St. Louis, MO 63103 US</td>
</tr>
<tr>
<td>Technical Phone:</td>
<td>314 771 5765</td>
</tr>
<tr>
<td>Fax:</td>
<td>800 325 5052</td>
</tr>
<tr>
<td>Emergency Phone:</td>
<td>414 273 3850 Ext.5996</td>
</tr>
</tbody>
</table>

Section 2 - Composition/Information on Ingredient

<table>
<thead>
<tr>
<th>Substance Name</th>
<th>CAS #</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACETONE 99.5 ATOM % D</td>
<td>666-52-4</td>
</tr>
</tbody>
</table>

Formula: C₃D₆O
Synonyms:

Section 3 - Hazards Identification

Emergency Overview
Flammable (USA) Highly Flammable (EU). Irritant. Irritating to respiratory system and skin. Risk of serious damage to eyes. Target organ(s): Liver. Kidneys.

HMIS Rating
Health: 1  Flammability: 4  Reactivity: 1

NFPA Ratings
Health: 1  Flammability: 4  Reactivity: 1

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

Oral Exposure
If swallowed, wash out mouth with water provided person is conscious. Call a physician.

Inhalation Exposure
If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

Dermal Exposure
In case of contact, immediately wash skin with soap and copious amounts of water.

Eye Exposure
In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.
Section 5 - Fire Fighting Measures

**Explosion Hazards**
Vapor may travel considerable distance to source of ignition and flash back. Container explosion may occur under fire conditions.

- **Flash Point:** -66.2 °F -19 °C
- **Explosion Limits:**
  - Lower: 2.15 %
  - Upper: 13.2 %
- **Autoignition Temp:** N/A
- **Flammability:** N/A

**Extinguishing Media**
- **Suitable**
  - Carbon dioxide, dry chemical powder, or appropriate foam.
- **Unsuitable**
  - Water may be effective for cooling, but may not effect extinguishment.

**Firefighting**
- **Protective Equipment**
  - Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
- **Specific Hazard(s)**
  - Extremely flammable. Vapor may travel considerable distance to source of ignition and flash back.

Section 6 - Accidental Release Measures

**Procedure to be Followed in Case of Leak or Spill**
Evacuate area. Shut off all sources of ignition.

**Procedure(s) of Personal Precaution(s)**
Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

**Methods for Cleaning Up**
Cover with dry-lime, sand, or soda ash. Place in covered containers using non-sparking tools and transport outdoors. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

**Handling**
- **User Exposure**
  - Avoid breathing vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

**Storage**
- **Suitable**
  - Keep container closed. Keep away from heat, sparks, and open flame. Store in a cool dry place.

Section 8 - Exposure Controls / PPE

**Engineering Controls**
Safety shower and eye bath. Use nonsparking tools. Mechanical exhaust required.

**Personal Protective Equipment**
- **Respiratory**
  - NIOSH/MSHA-approved respirator.
- **Hand**
  - Compatible chemical-resistant gloves.
- **Eye**
  - Chemical safety goggles.
General Hygiene Measures
Wash thoroughly after handling. Wash contaminated clothing before reuse.

Special Precautions
The material may slowly penetrate protective gloves; therefore in case of spills, discard gloves after use.

Section 9 - Physical/Chemical Properties

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Color</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Colorless</td>
<td>Clear liquid</td>
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</tbody>
</table>

Molecular Weight: 64.13 AMU

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>At Temperature or Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>BP/BP Range</td>
<td>55.5 °C</td>
<td>760 mmHg</td>
</tr>
<tr>
<td>MP/MP Range</td>
<td>-93 °C</td>
<td></td>
</tr>
<tr>
<td>Freezing Point</td>
<td>N/A</td>
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<tr>
<td>Vapor Pressure</td>
<td>184 mmHg</td>
<td>20 °C</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>2 g/l</td>
<td></td>
</tr>
<tr>
<td>Saturated Vapor Conc.</td>
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<td></td>
</tr>
<tr>
<td>SG/Density</td>
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<tr>
<td>Bulk Density</td>
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<tr>
<td>Odor Threshold</td>
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</tr>
<tr>
<td>Volatile%</td>
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<td></td>
</tr>
<tr>
<td>VOC Content</td>
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<td></td>
</tr>
<tr>
<td>Water Content</td>
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<td></td>
</tr>
<tr>
<td>Solvent Content</td>
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<td></td>
</tr>
<tr>
<td>Evaporation Rate</td>
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<td></td>
</tr>
<tr>
<td>Viscosity</td>
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<tr>
<td>Partition Coefficient</td>
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<td></td>
</tr>
<tr>
<td>Decomposition Temp.</td>
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</tr>
<tr>
<td>Flash Point °F</td>
<td>-66.2 °F</td>
<td></td>
</tr>
<tr>
<td>Flash Point °C</td>
<td>-19 °C</td>
<td></td>
</tr>
<tr>
<td>Explosion Limits</td>
<td>Lower: 2.15 %</td>
<td>Upper: 13.2 %</td>
</tr>
<tr>
<td>Autoignition Temp</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Refractive Index</td>
<td>1.356</td>
<td></td>
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<tr>
<td>Solubility</td>
<td>N/A</td>
<td></td>
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</tbody>
</table>

Section 10 - Stability and Reactivity

Stability

Conditions of Instability
Protect from moisture.

Conditions to Avoid
Protect from moisture.

Materials to Avoid
Bases, Oxidizing agents, Reducing agents.

Hazardous Decomposition Products

Hazardous Decomposition Products
Carbon monoxide, Carbon dioxide.

Hazardous Polymerization

Hazardous Polymerization
Will not occur.
Section 11 - Toxicological Information

Route of Exposure
Skin Contact
Causes skin irritation.

Eye Contact
Causes severe eye irritation.

Inhalation
Material is irritating to mucous membranes and upper respiratory tract.

Multiple Routes
May be harmful by inhalation, ingestion, or skin absorption.

Sensitization
Sensitization
Causes dermatitis.

Target Organ(s) or System(s)
Liver. Kidneys.

RTECS Number: N/A

Section 12 - Ecological Information

Section 13 - Disposal Considerations

Appropriate Method of Disposal of Substance or Preparation
Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable.
Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT
Proper Shipping Name: Acetone
UN#: 1090
Class: 3
Packing Group: Packing Group II
PIH: Not PIH

IATA
Proper Shipping Name: Acetone
IATA Number: 1090
Hazard Class: 3
Packing Group: II

Section 15 - Regulatory Information

EU Additional Classification
Symbol of Danger: F
Indication of Danger
Highly Flammable.
Risk Statements  R: 11
Highly flammable.
Safety Statements S: 9 16 23 33
Keep container in a well-ventilated place. Keep away from sources of ignition - no smoking. Do not breathe vapor. Take precautionary measures against static discharges.
US Classification and Label Text

Indication of Danger
Flammable (USA) Highly Flammable (EU). Irritant.

Risk Statements
Irritating to respiratory system and skin. Risk of serious damage to eyes.

Safety Statements
Keep away from sources of ignition - no smoking. Keep container tightly closed in a cool place. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

US Statements
Target organ(s): Liver. Kidneys.

United States Regulatory Information
SARA 313 Listed: No

Section 16 - Other Information

Warranty
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2000 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.