Section 1 - Product and Company Information

Product Name                  DL-1,2-ISOPROPYLIDENEGLYCEROL, 98%
Product Number                122696
Brand                          ALDRICH
Company                       Sigma-Aldrich Canada, Ltd
Address                       2149 Winston Park Drive
                              Oakville ON L6H 6J8 CA
Technical Phone:              9058299500
Fax:                          9058299292
Emergency Phone:             800-424-9300

Section 2 - Composition/Information on Ingredient

<table>
<thead>
<tr>
<th>Substance Name</th>
<th>CAS #</th>
<th>SARA 313</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,3-DIOXOLANE-4-METHANOL,</td>
<td>100-79-8</td>
<td>No</td>
</tr>
<tr>
<td>2,2-DIMETHYL-</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Formula                  | Acetone, cyclic (hydroxymethyl)ethylene acetal * |
|                         | Acetone glycerol * |
|                         | 2,2-Dimethyl-1,3-dioxolane-4-methanol * |
|                         | 2,2-Dimethyl-5-hydroxymethyl-1,3-dioxolane * |
|                         | 2,2-Dimethyl-4-oxymethyl-1,3-dioxolane * Dioxolan |
|                         | * GIE * Glycerolacetone * Glycerol dimethylketal |
|                         | * Glycerol, 1,2-O-isopropylidene * |
|                         | 4-Hydroxymethyl-2,2-dimethyl-1,3-dioxolane * |
|                         | Isopropylidene glycerol * Solketal * solketal * |
|                         | dl-alpha,beta-isopropylidene glycerol * dl-1,2-isopropylidene glycerol |

RTECS Number:   JI0400000

Section 3 - Hazards Identification

EMERGENCY OVERVIEW
Combustible.

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.

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**Section 5 - Fire Fighting Measures**

**CONDITIONS OF FLAMMABILITY**

Under fire conditions, material may decompose to form flammable and/or explosive mixtures in air.

**FLASH POINT**

194 °F  90 °C  Method: closed cup

**AUTOIGNITION TEMP**

N/A

**FLAMMABILITY**

N/A

**EXTINGUISHING MEDIA**

Suitable: For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

**FIREFIGHTING**

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

---

**Section 6 - Accidental Release Measures**

**PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL**

Evacuate area.

**PROCEDURE(S) OF PERSONAL PRECAUTION(S)**

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

**METHODS FOR CLEANING UP**

Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

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**Section 7 - Handling and Storage**

**HANDLING**

User Exposure: Do not breathe vapor. Avoid contact with eyes, skin, and clothing.

**STORAGE**

Suitable: Keep container closed. Keep away from heat and open flame. Store in a cool dry place.

---

**Section 8 - Exposure Controls / PPE**

**ENGINEERING CONTROLS**

Safety shower and eye bath. Mechanical exhaust required.
PERSONAL PROTECTIVE EQUIPMENT
Other: Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.

GENERAL HYGIENE MEASURES
Wash contaminated clothing before reuse. Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>At Temperature or Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>Colorless</td>
<td></td>
</tr>
<tr>
<td>Form</td>
<td>Clear liquid</td>
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</tr>
<tr>
<td>Molecular Weight</td>
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<tr>
<td>pH</td>
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<td>BP/BP Range</td>
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<tr>
<td>MP/MP Range</td>
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<tr>
<td>Freezing Point</td>
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<tr>
<td>Vapor Pressure</td>
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<td>Vapor Density</td>
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<td>Saturated Vapor Conc.</td>
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<td>Bulk Density</td>
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<td>Odor Threshold</td>
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<td>Volatile%</td>
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<tr>
<td>Water Content</td>
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<td>Solvent Content</td>
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<td>Evaporation Rate</td>
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<td>Viscosity</td>
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<td>Surface Tension</td>
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<tr>
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<td>Flash Point</td>
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<td>Explosion Limits</td>
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<td>Miscellaneous Data</td>
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<tr>
<td>Solubility</td>
<td>N/A</td>
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</tbody>
</table>

N/A = not available

Section 10 - Stability and Reactivity

STABILITY
Conditions to Avoid: Moisture.
Materials to Avoid: Acids, Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS
Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide.

Section 11 - Toxicological Information

ROUTE OF EXPOSURE
Multiple Routes: May be harmful by inhalation, ingestion, or skin absorption. May cause irritation.
SIGNS AND SYMPTOMS OF EXPOSURE
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

TOXICITY DATA

Oral
Rat
7000 mg/kg
LD50

Intraperitoneal
Rat
3 GM/KG
LD50

IRRITATION DATA

Eyes
Rabbit
100 mg

CHRONIC EXPOSURE - MUTAGEN

Species: Mouse
Route: Intraperitoneal
Dose: 1500 MG/KG
Mutation test: Micronucleus test

Section 12 - Ecological Information
No data available.

Section 13 - Disposal Considerations
APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION
This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information
DOT
Proper Shipping Name: Combustible liquid, n.o.s.
UN#: NA1993
Class: COMBUSTIBLE LIQUID
Packing Group: Packing Group III
Hazard Label: None
PIH: Not PIH

IATA
Non-Hazardous for Air Transport: Non-hazardous for air transport.

Section 15 - Regulatory Information
EU ADDITIONAL CLASSIFICATION
S: 23-24/25
Safety Statements: Do not breathe vapor. Avoid contact with skin and eyes.

US CLASSIFICATION AND LABEL TEXT
US Statements: Combustible.

UNITED STATES REGULATORY INFORMATION
SARA LISTED: No
TSCA INVENTORY ITEM: Yes

CANADA REGULATORY INFORMATION
WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.
DSL: Yes
NDSL: No

Section 16 - Other Information

DISCLAIMER
For R&D use only. Not for drug, household or other uses.

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. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. 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.
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