MATERIAL SAFETY DATA SHEET
Diisopropyl ether extrapure

Section 1 - Chemical Product and Company Identification

MSDS Name: Diisopropyl ether extrapure
Synonyms: Isopropyl ether; DIPE; 2-Isopropoxypropane
Company Identification: SISCO RESEARCH LABORATORIES PVT. LTD.
2-F, Satam Industrial Estate, ‘C’ Wing, 2nd Floor,
Dr. Cardinal Gracious Road, Chakala,
Andheri (East), Mumbai – 400 099.
Tel : 2687 2601/2687 8163/2687 8243
Fax : 2687 8241
Email : info@srlchem.com, export@srlchem.com
Website : www.srlchem.com

Section 2 - Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name</th>
<th>%</th>
<th>EINECS#</th>
</tr>
</thead>
<tbody>
<tr>
<td>108-20-3</td>
<td>Isopropyl ether</td>
<td>98+%</td>
<td>203-560-6</td>
</tr>
</tbody>
</table>

Section 3 - Hazards Identification

EMERGENCY OVERVIEW
Highly flammable. May form explosive peroxides. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

Potential Health Effects
Eye: May cause severe eye irritation. Causes redness and pain.
Skin: Non-irritating to the skin. Repeated or prolonged exposure may cause drying and cracking of the skin.
Ingestion: May cause nausea and vomiting. Causes cough, sore throat, chest pain, and lightheadedness.
Inhalation: May cause respiratory tract irritation. May cause effects similar to those described for ingestion. May cause narcotic effects in high concentration. Inhalation of vapors may cause drowsiness and dizziness.
Chronic: Prolonged or repeated skin contact may cause dermatitis.

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids.
Skin: Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Flammable liquid and vapor. May form explosive peroxides.

Extinguishing Media: Use water spray to cool fire-exposed containers. Use water spray, dry chemical, carbon dioxide, or chemical foam.

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Remove all sources of ignition. Use a spark-proof tool. Do not let this chemical enter the environment.

Section 7 – Handling and Storage

Handling: Use spark-proof tools and explosion proof equipment. Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes. Use only in a chemical fume hood.

Section 8 – Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

**Exposure Limits**

CAS# 108-20-3:
- United Kingdom, WEL - TWA: 250 ppm TWA; 1060 mg/m3 TWA
- United Kingdom, WEL - STEL: 310 ppm STEL; 1310 mg/m3 STEL
- United States OSHA: 500 ppm TWA; 2100 mg/m3 TWA
- Belgium - TWA: 250 ppm VLE; 1055 mg/m3 VLE
- Belgium - STEL: 310 ppm VLE; 1319 mg/m3 VLE
- France - VME: 250 ppm VME; 1050 mg/m3 VME
- Germany: 200 ppm TWA; 850 mg/m3 TWA
- Malaysia: 250 ppm TWA; 1040 mg/m3 TWA
- Netherlands: 250 ppm MAC; 1050 mg/m3 MAC
- Spain: 250 ppm VLA-ED; 1060 mg/m3 VLA-ED
- Spain: 310 ppm VLA-EC; 1310 mg/m3 VLA-EC

**Personal Protective Equipment**

**Eyes:** Wear chemical splash goggles.

**Skin:** Wear appropriate gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

**Physical State:** Clear liquid

**Boiling Point:** 68 deg C @760mmHg (154.40°F)

**Specific Gravity/Density:** 0.720

**Molecular Formula:** C₆H₁₄O

**Molecular Weight:** 102.18

Section 10 - Stability and Reactivity
**Chemical Stability:** Stable under normal temperatures and pressures. Light sensitive. May form explosive peroxides on prolonged storage.

**Conditions to Avoid:** High temperatures, incompatible materials, light, ignition sources, exposure to air.

**Incompatibilities with Other Materials**

- Strong oxidizing agents, amines, mineral acids, aldehydes.

**Hazardous Decomposition Products**

- Carbon monoxide, carbon dioxide, peroxides.

**Hazardous Polymerization**

Will not occur.

---

### Section 11 - Toxicological Information

**RTECS#:** CAS# 108-20-3: TZ5425000

**LD50/LC50:**

- **RTECS:**
  - CAS# 108-20-3: Inhalation, mouse: LC50 = 131 gm/m3;
  - Inhalation, mouse: LC50 = 130800 mg/m3;
  - Inhalation, rabbit: LC50 = 121 gm/m3;
  - Inhalation, rabbit: LC50 = 120600 mg/m3;
  - Inhalation, rat: LC50 = 162 gm/m3;
  - Inhalation, rat: LC50 = 161700 mg/m3;
  - Oral, mouse: LD50 = 3600 mg/kg;
  - Oral, rat: LD50 = 5880 mg/kg;
  - Skin, rabbit: LD50 = 20 mL/kg;
  - Other:

**Carcinogenicity:** Isopropyl ether - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

**Other:** See actual entry in RTECS for complete information.

---

### Section 12 - Ecological Information

**Ecotoxicity:**

- Fish: Pimephals prome: LC50: 81.7 mg/L; 96H;
- Daphnia: Daphnia: EC50: 190 mg/L; 48H; OECD Guide-line 202
  - Fish: Goldfish: LC50: 380 mg/L; 24H;

**Other:**

- Do not empty into drains.
- Biodegradation: 7% (APHA 219, 1971 at 20°C for 5 days)

---

### Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.
Section 14 - Transport Information

<table>
<thead>
<tr>
<th></th>
<th>IATA</th>
<th>IMO</th>
<th>RID/ADR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shipping Name:</td>
<td>DIISOPROPYL</td>
<td>DIISOPROPYL</td>
<td>DIISOPROPYL</td>
</tr>
<tr>
<td></td>
<td>ETHER</td>
<td>ETHER</td>
<td>ETHER</td>
</tr>
<tr>
<td>Hazard Class:</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>UN Number:</td>
<td>1159</td>
<td>1159</td>
<td>1159</td>
</tr>
<tr>
<td>Packing Group:</td>
<td>II</td>
<td>II</td>
<td>II</td>
</tr>
</tbody>
</table>

Section 15 - Regulatory Information

**European/International Regulations**
European Labeling in Accordance with EC Directives
Hazard Symbols: F
Risk Phrases:
R 11 Highly flammable.
R 19 May form explosive peroxides.
R 66 Repeated exposure may cause skin dryness or cracking.
R 67 Vapours may cause drowsiness and dizziness.
Safety Phrases:
S 9 Keep container in a well-ventilated place.
S 16 Keep away from sources of ignition - No smoking.
S 29 Do not empty into drains.
S 33 Take precautionary measures against static discharges.
WGK (Water Danger/Protection)
CAS# 108-20-3: 1
Canada
CAS# 108-20-3 is listed on Canada's DSL List
US Federal
TSCA
CAS# 108-20-3 is listed on the TSCA Inventory.

Section 16 - Additional Information

SISCO RESEARCH LABORATORIES provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.