Material Safety Data Sheet  
Diethyl Pyrocarbonate MSDS

Section 1: Chemical Product and Company Identification

Product Name: Diethyl Pyrocarbonate  
Catalog Codes: SLD1738  
CAS#: 1609-47-8  
RTECS: LQ3950000  
TSCA: TSCA 8(b) inventory: Diethyl Pyrocarbonate  
CI#: Not available.  
Synonym: Diethyl dicarbonate  
Chemical Name: Diethyl Pyrocarbonate  
Chemical Formula: C6-H10-O5  
Contact Information:  
Sciencelab.com, Inc.  
14025 Smith Rd.  
Houston, Texas 77396  
US Sales: 1-800-901-7247  
International Sales: 1-281-441-4400  
Order Online: ScienceLab.com  
CHEMTREC (24HR Emergency Telephone), call:  
1-800-424-9300  
International CHEMTREC, call: 1-703-527-3887  
For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS #</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethyl Pyrocarbonate</td>
<td>1609-47-8</td>
<td>100</td>
</tr>
</tbody>
</table>

Toxicological Data on Ingredients: Diethyl Pyrocarbonate: ORAL (LD50): Acute: 1558 mg/kg [Mouse]. 500 mg/kg [Rabbit]. 850 mg/kg [Rat].

Section 3: Hazards Identification

Potential Acute Health Effects: Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation (lung irritant).

Potential Chronic Health Effects:  
CARCINOGENIC EFFECTS: Classified 4 (No evidence.) by NTP, None. by OSHA, None. by NIOSH.  
MUTAGENIC EFFECTS: Not available.  
TERATOGENIC EFFECTS: Not available.  
DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to lungs, upper respiratory tract. Repeated or prolonged exposure to the substance can produce target organs damage.

Section 4: First Aid Measures

Eye Contact:
Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

**Skin Contact:**
In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

**Serious Skin Contact:** Not available.

**Inhalation:**
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Serious Inhalation:**
Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek medical attention.

**Ingestion:**
Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

**Serious Ingestion:** Not available.

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### Section 5: Fire and Explosion Data

- **Flammability of the Product:** Combustible.
- **Auto-Ignition Temperature:** Not available.
- **Flash Points:** CLOSED CUP: 69°C (156.2°F).
- **Flammable Limits:** Not available.
- **Products of Combustion:** These products are carbon oxides (CO, CO2).
- **Fire Hazards in Presence of Various Substances:** Not available.
- **Explosion Hazards in Presence of Various Substances:**
  - Risks of explosion of the product in presence of mechanical impact: Not available.
  - Risks of explosion of the product in presence of static discharge: Not available.
- **Fire Fighting Media and Instructions:**
  - SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.
- **Special Remarks on Fire Hazards:** Not available.
- **Special Remarks on Explosion Hazards:** Not available.

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### Section 6: Accidental Release Measures

**Small Spill:** Absorb with an inert material and put the spilled material in an appropriate waste disposal.

**Large Spill:**
Combustible material. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk.

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### Section 7: Handling and Storage

**Precautions:**
Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label.

Storage:
Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

## Section 8: Exposure Controls/Personal Protection

**Engineering Controls:**
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

**Personal Protection:**
Safety glasses. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

**Personal Protection in Case of a Large Spill:**
Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Exposure Limits:** Not available.

## Section 9: Physical and Chemical Properties

**Physical state and appearance:** Liquid.

**Odor:** Not available.

**Taste:** Not available.

**Molecular Weight:** 162.14 g/mole

**Color:** Colorless.

**pH (1% soln/water):** Not available.

**Boiling Point:** 93.5°C (200.3°F)

**Melting Point:** Not available.

**Critical Temperature:** Not available.

**Specific Gravity:** Not available.

**Vapor Pressure:** Not available.

**Vapor Density:** Not available.

**Volatility:** Not available.

**Odor Threshold:** Not available.

**Water/Oil Dist. Coeff.:** Not available.

**Ionicity (in Water):** Not available.

**Dispersion Properties:** Not available.

**Solubility:** Not available.

## Section 10: Stability and Reactivity Data
**Stability:** The product is stable.

**Instability Temperature:** Not available.

**Conditions of Instability:** Not available.

**Incompatibility with various substances:** Not available.

**Corrosivity:** Not available.

**Special Remarks on Reactivity:** Not available.

**Special Remarks on Corrosivity:** Not available.

**Polymerization:** Will not occur.

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### Section 11: Toxicological Information

**Routes of Entry:** Absorbed through skin. Eye contact. Inhalation. Ingestion.

**Toxicity to Animals:** Acute oral toxicity (LD50): 500 mg/kg [Rabbit].

**Chronic Effects on Humans:**
CARCINOGENIC EFFECTS: Classified 4 (No evidence.) by NTP, None. by OSHA, None. by NIOSH. May cause damage to the following organs: lungs, upper respiratory tract.

**Other Toxic Effects on Humans:** Slightly hazardous in case of skin contact (irritant), of inhalation (lung irritant).

**Special Remarks on Toxicity to Animals:** Not available.

**Special Remarks on Chronic Effects on Humans:** Not available.

**Special Remarks on other Toxic Effects on Humans:** Not available.

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### Section 12: Ecological Information

**Ecotoxicity:** Not available.

**BOD5 and COD:** Not available.

**Products of Biodegradation:**
Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:** The products of degradation are less toxic than the product itself.

**Special Remarks on the Products of Biodegradation:** Not available.

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### Section 13: Disposal Considerations

**Waste Disposal:**

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### Section 14: Transport Information

**DOT Classification:** CLASS 6.1: Poisonous material.

**Identification:**
Toxic Liquid, Organic, n.o.s (Diethyl Pyrocarbonate) UNNA: 2810 PG: III

**Special Provisions for Transport:** Not available.
Section 15: Other Regulatory Information

Federal and State Regulations: TSCA 8(b) inventory: Diethyl Pyrocarbonate

Other Regulations:

Other Classifications:
WHMIS (Canada):
CLASS B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F). CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC). CLASS D-2A: Material causing other toxic effects (VERY TOXIC).

DSCL (EEC):
R20/22- Harmful by inhalation and if swallowed. R36/37/38- Irritating to eyes, respiratory system and skin.

HMIS (U.S.A.):
- Health Hazard: 3
- Fire Hazard: 2
- Reactivity: 0
- Personal Protection: g

National Fire Protection Association (U.S.A.):
- Health: 3
- Flammability: 2
- Reactivity: 0
- Specific hazard:

Protective Equipment:
Gloves. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Safety glasses.

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

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