1. PRODUCT AND COMPANY IDENTIFICATION

- **Product name**: Diethyl pyrocarbonate
- **Product Number**: D5758
- **Brand**: Sigma
- **Company**: Sigma-Aldrich
  3050 Spruce Street
  SAINT LOUIS MO 63103
  USA
- **Telephone**: +1 800-325-5832
- **Fax**: +1 800-325-5052
- **Emergency Phone #**: (314) 776-6555

2. COMPOSITION/INFORMATION ON INGREDIENTS

- **Synonyms**: DEP, DEPC, Diethyl dicarbonate, Diethyl oxyformate, Ethoxyformic acid anhydride
- **Formula**: C6H10O5
- **Molecular Weight**: 162.14 g/mol

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>EC-No.</th>
<th>Index-No.</th>
<th>Concentration [%]</th>
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<tbody>
<tr>
<td>1609-47-8</td>
<td>216-542-8</td>
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3. HAZARDS IDENTIFICATION

- **Emergency Overview**: OSHA Hazards
  - Combustible Liquid
  - Irritant
- **HMIS Classification**: Health Hazard: 2, Flammability: 2, Physical hazards: 0
- **NFPA Rating**: Health Hazard: 2, Fire: 2, Reactivity Hazard: 0

4. FIRST AID MEASURES

- **General advice**: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
- **If Inhaled**: If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.
- **In case of skin contact**: Wash off with soap and plenty of water. Consult a physician.
- **In case of eye contact**: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
- **If swallowed**: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

- **Flammable properties**: Flash point 69 °C (156 °F) - closed cup
- **Ignition temperature**: no data available
- **Suitable extinguishing media**: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- **Special protective equipment for fire-fighters**: Wear self-contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

- **Personal precautions**: Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.
- **Environmental precautions**: Do not let product enter drains.
- **Methods for cleaning up**: Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

- **Handling**: Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.
- **Storage**: 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. Handle under argon. Store under argon.
- **Handle and open container with care. Moisten sensitive.**
8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose 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).

Hand protection
Handle with gloves.

Eye protection
Safety glasses

Skin and body protection
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
Form liquid, clear
Colour colourless

Safety data
pH no data available
Melting point no data available
Boiling point 160 - 163 °C (320 - 325 °F)
93 - 94 °C (199 - 201 °F) at 24 hPa (18 mmHg)
Flash point 69 °C (156 °F) - closed cup
Ignition temperature no data available
Lower explosion limit no data available
Upper explosion limit no data available
Density 1.120 g/cm³
Water solubility no data available

10. STABILITY AND REACTIVITY

Storage stability
Stable under recommended storage conditions. Water in the container will lead to increased pressure and risk of explosion.

Materials to avoid

Hazardous decomposition products
Hazardous decomposition products formed under fire conditions.
Carbon oxides

11. TOXICOLOGICAL INFORMATION

Acute toxicity
LD₅₀ Oral - rat - 650 mg/kg

Irritation and corrosion
no data available

Sensitisation
no data available

Chronic exposure
no data available

Signs and Symptoms of Exposure
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Potential Health Effects
Inhalation May be harmful if inhaled. May cause respiratory tract irritation.
Skin May be harmful if absorbed through skin. May cause skin irritation.
Eyes May cause eye irritation.
Ingestion May be harmful if swallowed.

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)
no data available

Ecotoxicity effects
no data available

Further information on ecology
no data available

13. DISPOSAL CONSIDERATIONS

Product
This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
UN-Number: 1993 Class: CBL Packing group: III

IMDG
Not dangerous goods

IATA

15. REGULATORY INFORMATION

OSHA Hazards
Combustible Liquid, Irritant

TSCA Status
On TSCA Inventory

DSL Status
All components of this product are on the Canadian DSL list.

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

SARA 313 Components
SARA 313: 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 Hazards
Fire Hazard, Acute Health Hazard

Massachusetts Right To Know Components
No Components Listed

Pennsylvania Right To Know Components

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New Jersey Right To Know Components

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California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects.

16. OTHER INFORMATION

Further information
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