Section 1 - Product and Company Information

Product Name: N,N-Diisopropylethylene, redistilled, 99.5%
Product Number: 387649
Brand: Sigma-Aldrich
Company: Sigma-Aldrich
Street Address: 3001 South Street
City, State, Zip, Country: SAINT LOUIS, MO 63103 US
Technical Phone: 800-325-6002
Fax: 800-325-6002
Emergency Phone: 314-776-6555

Section 2 - Composition/Information on Ingredient

Substance Name: DIISOPROPYLETHYLAMINE
CAS #: 7097-60-5
SARA 313: No
EC No: 230-392-0
Annex I Index Number: CBH19N

Section 3 - Hazards Identification

Emergency Overview
Flammable (EU), Harmful if swallowed, Causes burns, Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

HMIS Rating
Health: 3 Flammability: 3 Reactivity: 0
NFPA Rating
Health: 3 Flammability: 3 Reactivity: 0

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 immediately. Do not induce vomiting.

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 skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

Section 5 - Fire Fighting Measures

Flammable Hazards: Yes

Explosion Hazards
Vapor may travel considerable distance to source of ignition and flash back. Container explosion may occur under fire conditions. Forms explosive mixtures in air.

Flash Point: 51 °F 10.6 °C
Explosion Limits: Lower: 0.7 % Upper: 6.3 %
Autoignition Temp: 240 °C
Flammability: Yes

Extinguishing Media
Suitable: Suitable for small (recipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use only 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.
Specific Hazard(s): Flammable liquid. Emits toxic fumes under fire conditions.
Specific Method(s) of Fire Fighting
Use water spray to cool fire-exposed containers.

Section 6 - Accidental Release Measures

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

Procedure(s) of Personal Protection(s)
Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

Methods for Cleaning Up
Cover with drylime, 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
Do not breathe vapor. Do not get in eyes, on skin, or clothing. Avoid prolonged or repeated exposure.

Sigma-Aldrich - 387649
Page 2
Section 8 - Exposure Controls / PPE

Engineering Controls
Safety shower and eye bath. Use nonsparking tools. Use only in a chemical fume hood.

Personal Protective Equipment
Respiratory
Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a half-face respirator with multipurpose 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.

Hand
Compatible chemical-resistant gloves.

Eye
Chemical safety goggles.

Other
Face shield (8-inch minimum).

General Hygiene Measures
Wash contaminated clothing before reuse. Discard contaminated shoes. 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>Molecular Weight</td>
<td>129.25 AMU</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>12.3</td>
<td></td>
</tr>
<tr>
<td>BP/SP Range</td>
<td>127 °C</td>
<td>760 mmHg</td>
</tr>
<tr>
<td>MP/MP Range</td>
<td>-50 °C</td>
<td></td>
</tr>
<tr>
<td>Freezing Point</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>31 mmHg</td>
<td>37.7 °C</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Saturated Vapor Conc.</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>SG/Density</td>
<td>0.742 g/cm3</td>
<td></td>
</tr>
<tr>
<td>Bulk Density</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Volatility</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>VOC Content</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Water Content</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Solvent Content</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Viscosity</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Decomposition Temp.</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Flash Point °F</td>
<td>51 °F</td>
<td>Method: closed cup</td>
</tr>
<tr>
<td>Flash Point °C</td>
<td>10.6 °C</td>
<td>Method: closed cup</td>
</tr>
<tr>
<td>Explosion Limits</td>
<td>Lower: 0.7 %</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Upper: 6.3 %</td>
<td></td>
</tr>
<tr>
<td>Flammability</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

Section 10 - Stability and Reactivity

Stability
Stable.

Materials to Avoid
Acids, Acid chlorides, Acid anhydrides, Strong oxidizing agents, Carbon dioxide, Copper, Brass, Rubber.

Hazardous Decomposition Products
Carbon monoxide, Carbon dioxide, Nitrogen oxides.

Section 11 - Toxicological Information

Route of Exposure
Skin Contact
Causes burns.

Skin Absorption
May be harmful if absorbed through the skin.

Eye Contact
Causes burns.

Inhalation
May be extremely destructive to the tissue of the mucous membranes and upper respiratory tract. May be harmful if inhaled.

Ingestion
May be harmful if swallowed.

Signs and Symptoms of Exposure
Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Inhalation may result in spasms, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

RTECS Number: N/A

Toxicity Data
Oral - Rat: >200 - <500 mg/kg (LD50)

Section 12 - Ecological Information

Acute Ecotoxicity Tests
Test Type
EC50 Daphnia
Species
Daphnia magna
Time: 48 h
Value: 74.3 mg/l

Elimination
Additional Results/Data from Relevant Scientific Experiments
May be harmful to aquatic organisms due to the shift of the pH. Avoid contamination of the environment.
Section 13 - Disposal Considerations

Appropriate Method of Disposal of Substance or Preparation
Contact a licensed professional waste disposal service to dispose of this material. Burning in a chemical incinerator equipped with an afterburner and scrubber but avoid 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: Amines, flammable, corrosive, n.o.s. [or Polyamines, flammable, corrosive, n.o.s.
- UN#: 2733
- Class: 3
- Packing Group: Packing Group II
- Hazard Label: Flammable liquid
- Hazard Label: Corrosive
- PH: Not PH

IATA
- Proper Shipping Name: Amines, flammable, corrosive, n.o.s.
- IATA UN Number: 2733
- Hazard Class: 3
- Packing Group: II

Section 15 - Regulatory Information

EU Additional Classification
- Symbol of Danger: F C
- Indication of Danger: Highly Flammable, Corrosive.
- Risk Statements: R: 11 22 34 52/53
  Highly flammable. Harmful if swallowed. Causes burns. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- Safety Statements: S: 16 26 36/37/39 45 60
  Keep away from sources of ignition - no smoking. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). This material and its container must be disposed of as hazardous waste.

US Classification and Label Text
- Indication of Danger: Flammable (USA) Highly Flammable (EU), Corrosive.
- Risk Statements: Harmful if swallowed. Causes burns. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- Safety Statements: Keep away from sources of ignition - no smoking. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Take precautionary measures against static discharges. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). This material and its container must be disposed of as hazardous waste.

United States Regulatory Information
- SARA Listed: No

Canada Regulatory Information
- WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CFIR, and the MSDS contains all the information required by the CFIR.
- DSL: Yes
- NDSL: No

Sigma-Aldrich - 387649
Page 5
Sigma-Aldrich Corporation
www.sigma-aldrich.com

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. Copyright 2007 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.