Section 1 - Product and Company Information

Product Name: 4-Methylpiperidine, 99%
Brand: Aldrich Chemical
Company: Sigma-Aldrich
Street Address: 350 Spruce Street
City, State, Zip, Country: SAINT LOUIS, MO 63103 US
Technical Phone: 314 771 5765
Fax: 800 325 5052
Emergency Phone: 414 273 3850 Ext. 5696

Section 2 - Composition/Information on Ingredient

<table>
<thead>
<tr>
<th>Substance Name</th>
<th>CAS #</th>
<th>SARA 313</th>
<th>EC No</th>
<th>Annex I Index</th>
<th>Number</th>
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<tbody>
<tr>
<td>4-METHYLPIPERIDINE</td>
<td>626-58-4</td>
<td>No</td>
<td>210-954-1</td>
<td></td>
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</tbody>
</table>

Formula: C6H13N

Section 3 - Hazards Identification

Emergency Overview
Flammable (USA) Highly Flammable (EU). Harmful. Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes, respiratory system and skin.

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

Immediate Treatment - Work Site
In case of contact, immediately flush eyes or skin with copious amounts of water for at least 15 minutes while removing contaminated clothing and shoes.

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.

Eye Exposure
Assure adequate flushing of the eyes by separating the eyelids with fingers.

Section 5 - Fire Fighting Measures

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: 55.4 °F 13 °C
Autoignition Temp: N/A

Extinguishing Media
Suitable: Carbon dioxide, dry chemical powder, or appropriate foam.
Unsuitable: Water may be effective for cooling, but may not effect extinguishment.

Firefighting
Protective Equipment
Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
Specific Hazard(s)
Vapor may travel considerable distance to source of ignition and flash back. Emits toxic fumes under fire conditions.

Exposure Hazard(s)
Material: Irritant. Harmful liquid and fumes.

Section 6 - Accidental Release Measures

Procedure to be Followed in Case of Leak or Spill
Evaluate area. Shut off all sources of ignition.

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

Methods for Cleaning Up
Cover with dry-lime, sand, or soda ash. Place in covered containers using non-sparking tools and transport outdoors. Ventilate area and wash spill site after material picked up is complete.

Section 7 - Handling and Storage

Handling
User Exposure
Do not breathe vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

Storage
Suitable: Keep tightly closed. Keep away from heat, sparks, and open flame. Store in a cool dry place.

Section 8 - Exposure Controls / PPE

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

Personal Protective Equipment
Other
Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.
Section 9 - Physical/Chemical Properties

**Appearance**
- Color: Very faintly yellow
- Form: Clear liquid

**Molecular Weight:** 99.18 AMU

**pH**
- N/A

**BP/Boiling Point**
- 122 - 126 °C

**Flash Point**
- N/A

**Vapor Pressure**
- N/A

**Vapor Density**
- N/A

**Saturated Vapor Conc.**
- 0.839 g/cm³

**SG/Density**
- 0.839 g/cm³

**Bulk Density**
- N/A

**Odor Threshold**
- N/A

**Volatile%**
- N/A

**VOC Content**
- N/A

**Water Content**
- N/A

**Solvent Content**
- N/A

**Evaporation Rate**
- N/A

**Viscosity**
- N/A

**Partition Coefficient**
- N/A

**Decomposition Temp.**
- N/A

**Flash Point °F**
- 55.4 °F

**Flash Point °C**
- 13 °C

**Explosion Limits**
- N/A

**Flammability**
- N/A

**Autoignition Temp**
- N/A

**Refractive Index**
- 1.446

**Solubility**
- N/A

**N/A = not available**

Section 10 - Stability and Reactivity

**Stability**
- Materials to Avoid: Acids, Acid chlorides, Acid anhydrides, Strong oxidizing agents, Carbon dioxide.

**Hazardous Decomposition Products**
- Thermal decomposition may produce carbon monoxide, carbon dioxide, and nitrogen oxides.

Section 11 - Toxicological Information

**Route of Exposure**
- Skin Contact: Causes skin irritation.
- Multiple Routes: Harmful if swallowed, inhaled, or absorbed through skin. Vapor or mist is irritating to the eyes, mucous membranes, and upper respiratory tract.

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

**RTECS Number:** N/A

Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations

**Appropriate Method of Disposal of Substance or Preparation**
- Burn in a chemical incinerator equipped with an afterburner and scrubber but exercise 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: Flammable liquid, n.o.s.
- UN No.: 1993
- Class: 3
- Packing Group: Packing Group II
- Hazard Label: Flammable Liquid
- PIG: Not PIG

**IATA**
- Proper Shipping Name: Flammable liquid, n.o.s.
- IATA UN Number: 1993
- Hazard Class: 3
- Packing Group: II

Section 15 - Regulatory Information

**EU Additional Classification**
- Symbol of Danger: F Xi

**Indication of Danger**
- Highly Flammable, Irritant.

**Risk Statements**
- R: 11 36/37/38
  - Highly flammable, irritating to eyes, respiratory system and skin.

**Safety Statements**
- S: 16 26 36
  - 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.

**US Classification and Label Text**
- Indication of Danger: Flammable (USA) Highly Flammable (EU), Harmful.

**Risk Statements**
- Harmful by inhalation, in contact with skin and if swallowed; irritating to eyes, respiratory system and skin.

**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. Wear suitable protective clothing.
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 CPR, and the MSDS contains all the information required by the CPR.
DSL: No
NDSL: Yes

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 2005 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.