Section 1 - Product and Company Information

Product Name                 N-METHYLDIPHENYLAMINE, 96%
Product Number               524212
Brand                        ALDRICH
Company                      Sigma-Aldrich Canada, Ltd
Address                      2149 Winston Park Drive
                              Oakville ON L6H 6J8 CA
Technical Phone:             9058299500
Fax:                         9058299292
Emergency Phone:             800-424-9300

Section 2 - Composition/Information on Ingredient

<table>
<thead>
<tr>
<th>Substance Name</th>
<th>CAS #</th>
<th>SARA 313</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-METHYLDIPHENYLAMINE</td>
<td>552-82-9</td>
<td>No</td>
</tr>
</tbody>
</table>

Formula         C13H13N

Section 3 - Hazards Identification

EMERGENCY OVERVIEW
   Irritant.
   Irritating to eyes, respiratory system and skin.

HMIS RATING
   HEALTH: 1
   FLAMMABILITY: 1
   REACTIVITY: 0

NFPA RATING
   HEALTH: 1
   FLAMMABILITY: 1
   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.

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 contact, immediately wash skin with soap and copious amounts of water.

EYE EXPOSURE
In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

Section 5 - Fire Fighting Measures

FLASH POINT
230 °F  110 °C   Method: closed cup

AUTOIGNITION TEMP
N/A

FLAMMABILITY
N/A

EXTINGUISHING MEDIA
Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

FIREFIGHTING
Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
Specific Hazard(s): Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

PROCEDURE(S) OF PERSONAL PRECAUTION(S)
Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP
Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup 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.

Section 8 - Exposure Controls / PPE

ENGINEERING CONTROLS
Mechanical exhaust required. Safety shower and eye bath.

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 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.
Hand: Compatible chemical-resistant gloves.
Eye: Chemical safety goggles.

GENERAL HYGIENE MEASURES
Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

Appearance  Physical State: Liquid
Molecular Weight | 183.25 AMU
---|---
pH | N/A
BP/BP Range | 293 °C, 760 mmHg
MP/MP Range | N/A
Freezing Point | N/A
Vapor Pressure | N/A
Vapor Density | N/A
Saturated Vapor Conc. | N/A
SG/Density | 1.05 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
Surface Tension | N/A
Partition Coefficient | N/A
Decomposition Temp. | N/A
Flash Point | 230 °F, 110 °C, Method: closed cup
Explosion Limits | N/A
Flammability | N/A
Autoignition Temp | N/A
Refractive Index | 1.623
Optical Rotation | N/A
Miscellaneous Data | N/A
Solubility | N/A

N/A = not available

Section 10 - Stability and Reactivity

STABILITY
Stable: Stable.
Materials to Avoid: Strong oxidizing agents.

HAZARDOUS POLYMERIZATION
Hazardous Polymerization: Will not occur

Section 11 - Toxicological Information

ROUTE OF EXPOSURE
Skin Contact: Causes skin irritation.
Skin Absorption: May be harmful if absorbed through the skin.
Eye Contact: Causes eye irritation.
Inhalation: May be harmful if inhaled. Material is irritating to mucous membranes and upper respiratory tract.
Ingestion: May be harmful if swallowed.

SIGNS AND SYMPTOMS OF EXPOSURE
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12 - Ecological Information
No data available.
Section 13 - Disposal Considerations

**APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION**

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

**DOT**

- Proper Shipping Name: None
- Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

**IATA**

- Non-Hazardous for Air Transport: Non-hazardous for air transport.

Section 15 - Regulatory Information

**EU ADDITIONAL CLASSIFICATION**

- Symbol of Danger: Xi
- Indication of Danger: Irritant.
- R: 36/37/38
- Risk Statements: Irritating to eyes, respiratory system and skin.
- S: 26-36
- Safety Statements: 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: Irritant.
- Risk Statements: Irritating to eyes, respiratory system and skin.
- Safety Statements: 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