Section 1 - Product and Company Information

Product Name: L-Leucine B-naphthylamide hydrochloride
Product Number: L0376
Brand: Sigma Chemical
Company: Sigma-Aldrich
Address: 3050 Spruce Street
City, State, Zip, Country: SAINT LOUIS, MO 63103 US
Technical Phone: 800-325-5822
Emergency Phone: 314-776-5555
Fax: 800-325-5302

Section 2 - Composition/Information on Ingredient

Substance Name: L-LEUCINE B NAPHTHYLAMIDE HYDROCHLORIDE
CAS #: 893-36-7
DARA 313: No
EC no: 212-970-4
Annex I Index Number: 

Formula: C16H23N2O2Cl
Synonyms: 

Section 3 - Hazards Identification


HMIS Rating:
- Health: 0
- Flammability: 0
- Reactivity: 0

NFPA Rating:
- Health: 0
- Flammability: 0
- Reactivity: 0

*additional chronic hazards present.
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 breathing becomes difficult, call a physician.

Dermal Exposure: In case of contact, immediately wash skin with soap and copious amounts of water.

Section 5 - Fire Fighting Measures

Autoignition Temp: 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):
Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of dust.

Methods for Cleaning Up:
Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

Handling:
- User Exposure:
  - Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

Storage:
- Suitable: Keep tightly closed. Store at -20°C

Section 8 - Exposure Controls / PPE

Engineering Controls:
- Safety shower and eye bath. Mechanical exhaust required.

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 dust mask type N95 (US) or type P1 (EN 143) respirator.
- Hand:
  - Compatible chemical-resistant gloves.
- Eye:
  - Chemical safety goggles.
Section 9 - Physical/Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molecular Weight</td>
<td>282.6 AMU</td>
</tr>
<tr>
<td>pH</td>
<td>N/A</td>
</tr>
<tr>
<td>BP/BP Range</td>
<td>N/A</td>
</tr>
<tr>
<td>MP/MP Range</td>
<td>255 °C</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>N/A</td>
</tr>
<tr>
<td>Saturated Vapor Conc.</td>
<td>N/A</td>
</tr>
<tr>
<td>SG/Density</td>
<td>N/A</td>
</tr>
<tr>
<td>Bulk Density</td>
<td>N/A</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>N/A</td>
</tr>
<tr>
<td>Viscosity</td>
<td>N/A</td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>N/A</td>
</tr>
<tr>
<td>Decomposition Temp.</td>
<td>N/A</td>
</tr>
<tr>
<td>Flash Point °F</td>
<td>N/A</td>
</tr>
<tr>
<td>Flash Point °C</td>
<td>N/A</td>
</tr>
<tr>
<td>Explosion Limits</td>
<td>N/A</td>
</tr>
<tr>
<td>Flammability</td>
<td>N/A</td>
</tr>
<tr>
<td>Autoignition Temp.</td>
<td>N/A</td>
</tr>
<tr>
<td>Optical Rotation</td>
<td>+108 - +95 (+/-3)</td>
</tr>
<tr>
<td>Solubility</td>
<td>N/A</td>
</tr>
<tr>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Section 10 - Stability and Reactivity

Stability
- Stable

Materials to Avoid
- Strong oxidizing agents

Hazardous Decomposition Products
- Carbon monoxide
- Carbon dioxide
- Nitrogen oxides
- Hydrogen chloride gas

Section 11 - Toxicological Information

Route of Exposure
- Skin Contact: May cause skin irritation.
- Skin Absorption: May be harmful if absorbed through the skin.
- Eye Contact: May cause eye irritation.
- Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.
- Ingestion: May be harmful if swallowed.

Signs and Symptoms of Exposure
These chronic effects are suggested from analogy to betanaphthylamine. RTECS® GM210000. 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
- 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.

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

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

Section 14 - Transport Information

Safety Statements
- S. 22 24/25: Do not breathe dust. Avoid contact with skin and eyes.
- Harmful
- Limited evidence of a carcinogenic effect.
- Wear suitable protective clothing. Do not breathe dust.

US Statements
- Possible carcinogen.
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: No

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 © 2008 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.