Section 1 - Product and Company Information

Product Name: N-Methyl-D-aspartic acid, minimum 99% trititation
Product Number: 1042828
Brand: Sigma Chemical
Company: Sigma-Aldrich
Street Address: 3001 Service Street
City, State, Zip, Country: SAINT LOUIS, MO 63103 US
Technical Phone: 800-926-5853
Fax: 800-926-5853
Emergency Phone: 314-776-6555

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 1 Index Number</th>
</tr>
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<tbody>
<tr>
<td>N-METHYL-D-ASPARTIC ACID</td>
<td>6384-92-5</td>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Formula: C5H9NO4
Synonyms: N-Methyl-D-aspartate, N-Methyl-D-aspartic acid, NMDA

Section 3 - Hazards Identification

Emergency Overview:
Caution: The chemical, physical, and toxicological properties of this product have not been thoroughly investigated. Exercise due care.

HMIS Rating:
Health: 1
Flammability: 0
Reactivity: 0

NFPA Rating:
Health: 1
Flammability: 0
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 breathing becomes difficult, call a physician.

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.

Eye Exposure: In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

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.

Section 6 - Accidental Release Measures

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.

Section 8 - Exposure Controls / PPE

Engineering Controls:
Safety shower and eye bath. 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 dust mask type N95 (US) or type P1 (EN 143) respirator.
Hand:
Protective gloves.
Eye:
Chemical safety goggles.

General Hygiene Measures:
Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

Appearance:
Physical State: Solid
Color: White
Form: Powder
### Molecular Weight
147 AMU

### pH
N/A

### Boiling Point Range
N/A

### Freezing Point
N/A

### Vapor Pressure
N/A

### Vapor Density
N/A

### Saturated Vapor Conc.
N/A

### SG/Density
N/A

### 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"
N/A

### Flash Point °C
N/A

### Explosion Limits
N/A

### Flammability
N/A

### Autoignition Temp
N/A

### Optical Rotation
Degrees of Rotation: Solvent: H2O20 g/l

### Solubility
Solvent: 0.1 g/ml HCl 1.0 M, complete, colorless

N/A = not available

### Section 10 - Stability and Reactivity

**Stability**

Stable.

**Materials to Avoid**

Strong acids, Strong bases.

**Hazardous Decomposition Products**

Carbon monoxide, carbon dioxide, and nitrogen oxides.

**Hazardous Polymerization**

Will not occur.

### 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.

### 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**

Safety Statements: S: 22 24/25

Do not breathe dust. Avoid contact with skin and eyes.

**US Classification and Label Text**

US Statements

Caution: The chemical, physical, and toxicological properties of this product have not been thoroughly investigated. Exercise due care.

**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: Yes

NDSL: Yes

### Section 16 - Other Information

**Disclaimer**

For R&D use only. Not for drug, household or other use.
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 2002 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.