Material Safety Data Sheet

Section 1. Product and Company Identification

<table>
<thead>
<tr>
<th>Product Name</th>
<th>1,6-Hexanediameine</th>
<th>Product Code</th>
<th>HX0315</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturer</td>
<td>EMD Chemicals Inc.</td>
<td>Effective Date</td>
<td>8/9/2005</td>
</tr>
<tr>
<td>P.O. Box 70</td>
<td></td>
<td>Print Date</td>
<td>9/6/2005</td>
</tr>
<tr>
<td>480 Democrat Road</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gibbstown, NJ 08027</td>
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<tr>
<td>Prior to January 1, 2003 EMD Chemicals Inc. was EM Industries, Inc. or EM Science, Division of EM Industries, Inc.</td>
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</tbody>
</table>

For More Information Call
856-423-6300 Technical Service
Monday-Friday: 8:00 AM - 5:00 PM

In Case of Emergency Call
800-424-9300 CHEMTREC (USA)
613-996-6666 CANUTEC (Canada)
24 Hours/Day: 7 Days/Week

Synonym
Hexamethylenediamine

Material Uses
Analytical reagent.

Chemical Family
Amine.

Section 2. Composition and Information on Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,6-Hexanediameine</td>
<td>124-09-4</td>
<td>100</td>
</tr>
</tbody>
</table>

Section 3. Hazards Identification

Physical State and Appearance
Solid.

Emergency Overview
DANGER!
CAUSES RESPIRATORY TRACT, EYE AND SKIN BURNS.
HARMFUL IF INHALED, ABSORBED THROUGH SKIN OR SWALLOWED.
COMBUSTIBLE SOLID.
CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS:
MUCOUS MEMBRANES, SKIN, EYE, LENS OR CORNEA.

Routes of Entry
Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.

Potential Acute Health Effects

*Eyes*: Hazardous in case of eye contact (corrosive). Causes eye burns.

*Skin*: Hazardous in case of skin contact (permeator, corrosive). Skin contact produces burns.

*Inhalation*: Hazardous in case of inhalation (lung corrosive).

*Ingestion*: Hazardous in case of ingestion.

Potential Chronic Health Effects

Carcinogenic Effects This material is not known to cause cancer in animals or humans.

Continued on Next Page
Section 6. Accidental Release Measures

Small Spill and Leak | Use appropriate tools to put the spilled solid in a convenient waste disposal container.
---|---
Large Spill and Leak | Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray curtain to divert vapor drift. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Spill Kit Information | No specific spill kit required for this product.

Section 7. Handling and Storage

Handling | Avoid contact with eyes, skin and clothing. Do not ingest. Do not breathe dust. Keep container closed.
---|---
Storage | Keep container in a cool, well-ventilated area.

Section 8. Exposure Controls/Personal Protection

Engineering Controls | Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
---|---
Personal Protection | Eyes: Splash goggles.
---|---
Body: Synthetic apron.
---|---
Respiratory: Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.
---|---
Hands: Gloves.
---|---
Feet: Not applicable.

Protective Clothing (Pictograms)

Personal Protection in Case of a Large Spill | Splash goggles. Full suit. Vapor and dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Exposure Limits</th>
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| 1,6-Hexanediamine | **Belgium Minister of Labour (Belgium, 1998).**
VL: 2.3 mg/m³ 8 hour(s).
VL: 0.5 ppm 8 hour(s).
**BAUA (Germany, 1997). Skin**
TWA: 2.3 mg/m³ 8 hour(s).
**DK-Arbejdstyrsinet (Denmark, 1996).**
GV: 2.3 mg/m³ 8 hour(s).
GV: 0.5 ppm 8 hour(s).
**National Authority for Occupational Safety/Health (Ireland, 1999).**
OEL: 2.3 mg/m³ 8 hour(s).
OEL: 0.5 ppm 8 hour(s).
**Arbeidsinspectie (Netherlands, 1999).**
TGG 8 uur: 2.3 mg/m³ 8 hour(s).
TGG 8 uur: 0.5 ppm 8 hour(s).|

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1,6-Hexanediameine HX0315

Acute Effects on Humans

Synergetic Products (Toxieologically)
Not available.

Irritancy
Draize Test: Not available.

Sensitization
Not available.

Carcinogenic Effects
This material is not known to cause cancer in animals or humans.

Toxicity to Reproductive System
Tests on laboratory animals for reproductive effects are cited in Registry of Toxic Effects on Chemical Substances (RTECS).

Teratogenic Effects
Not available.

Mutagenic Effects
Not available.

Section 12. Ecological Information

Ecotoxicity
Not available.

BOD5 and COD
Not available.

Toxicity of the Products of Biodegradation
The products of degradation are less toxic than the product itself.

Section 13. Disposal Considerations

EPA Waste Number
Not available.

Treatment
Material does not have an EPA Waste Number and is not a listed waste, however consultation with a permitted waste disposal site (TSD) should be accomplished. Always contact a permitted waste disposal (TSD) to assure compliance with all current local, state, and Federal Regulations.

Section 14. Transport Information

DOT Classification
Proper Shipping Name: HEXAMETHYLENEDIAMINE, SOLID
Hazard Class: 8
UN number: UN2280
Packing Group: III
RQ: Not applicable.

TDG Classification
Not available.

IMO/IMDG Classification
Not available.

ICAO/IATA Classification
Not available.

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