

827 RUIKAI BUILDING ,101 XIAOSHAN ROAD LIUHE NANJING CITY JIANGSU CHINA Tel:0086-25-57015632 Fax:0086-25-57019235 E-Mail:sales@msnchem.com

### MATERIAL SAFETY DATA SHEET

#### 1). Chemical Product and Company Identification

Product name: POLYUREA

Chemical name: N,N'-(methylenedi-p-phenylene)bis(aziridine-1-carboxamide)

CAS NO.: 7417-99-4

Chemical formula: C<sub>19</sub>H<sub>20</sub>N<sub>4</sub>O<sub>2</sub>

Synonym: POLYUREA

Producer: Nanjing Msn Chemical Co.,Ltd.

Address:827 Ruikai Building,101 Xiaoshang Road,Liuhe,Nanjing,Jiangsu,China

Tel:86-25-57015632

#### 2). Composition and information on ingredients

Chemical name: N,N'-(methylenedi-p-phenylene)bis(aziridine-1-carboxamide)

CAS #: **7417-99-4** 98 % by weight Hazard Symbols: Xn

Risk Phrases: 36/37/38

#### 3). Hazards Identification

**EMERGENCY OVERVIEW** 

Irritating to eyes, respiratory system and skin. Hygroscopic (absorbs moisture from the air).

**Potential Health Effects** 

Eye:

Causes eye irritation.

Skin:

Causes skin irritation.

Ingestion:

The toxicological properties of this substance have not been fully investigated.

Inhalation:

Causes respiratory tract irritation.

**Chronic:** 

Not available.

### 4).First aid Measures

Eyes:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin:

Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion:

Get medical aid. Wash mouth out with water.

Inhalation:

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

**Notes to Physician:** 



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#### 5). Fire and Explosion Data

**General Information:** 

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

**Extinguishing Media:** 

Use alcohol type foam, dry chemical.

#### 6).Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Vacuum or sweep up material and place into a suitable disposal container.

#### 7). Handling and Storage

Handling:

Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes.

Storage:

Store in a cool, dry place. Store in a tightly closed container.

#### 8). Exposure Controls and Personal Protection

**Engineering Controls:** 

Use adequate ventilation to keep airborne concentrations low.

**Personal Protective Equipment** 

Eyes:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA\'s eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to minimize contact with skin.

**Respirators:** 

Follow the OSHA respirator regulations found in 29

CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

#### 9). Physical and Chemical properties

Product type: WHITE SOLID PARTICLE

Taste / Odor

Molecular Weight: 336 BULK DENSITY: 0.2-0.4g/cm₃ THAW POINT: 166~172 °C

### 10).Stability and Reactivity Data

**Chemical Stability:** 

Stable under normal temperatures and pressures.

**Conditions to Avoid:** 



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Incompatible materials, exposure to moist air or water. Temperature above 180  $^{\circ}\mathrm{C}$ 

**Incompatibilities with Other Materials:** 

Strong oxidizing agents.

**Hazardous Decomposition Products:** 

Combustion may produce nitrous oxide and carbon monoxide.

Hazardous Polymerization: Has not been reported.

#### 11). Toxicological Information

**Toxicity:** 

**Route Test Dose Units Comments** 

Oral LD50 2000 MG/KG Slightly toxic

Skin LD50 >3000 MG/KG (1)

**Toxicity test:** 

(1) Slightly toxic by absorption. May cause mild skin irritation and sensitization. May cause severe eye irritation. Positive results were obtained in a battery of short-term in-vitro genotoxicity assay, (Ames cho/hgpt cell transformation).

Carcinogen:

Polyfunctional aziridine cross-linking agent -

IARC: NO NTR: NO OSHA: NO

#### 12). Ecological Information

### 13).Disposal Consideration

Dispose of in a manner consistent with federal, state, and local regulations.

#### 14). Transport Information

IATA

No information available.

IMO

No information available.

RID/ADR

No information available.

IMDG:

IMDG NOT REGULATED

Identification

Special provision for Transport

#### 15).Other Regulatory Information

**European/International Regulations** 

**European Labeling in Accordance with EC Directives** 

**Hazard Symbols: Xn** 

**Risk Phrases:** 

R 36/37/38 Irritating to eyes, respiratory system

and skin.

**Safety Phrases:** 

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 37/39 Wear suitable gloves and eye/face protection.



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WGK (Water Danger/Protection)

CAS#7417-99-4: No information available.

**United Kingdom Occupational Exposure Limits** 

**United Kingdom Maximum Exposure Limits** 

Canada

CAS#7417-99-4 is listed on Canada\'s NDSL List.

CAS#7417-99-4 is not listed on Canada\'s Ingredient Disclosure List.

**Exposure Limits** 

**US FEDERAL** 

**TSCA** 

CAS# 7417-99-4 is listed on the TSCA inventory.

#### 16).Other Information

Reference

Other Special consideration MSDS Created: 7/16/2011

Dated:

Updated: