

## 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:  $C_{19}H_{20}N_4O_2$

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:

**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/cm<sup>3</sup>

THAW POINT: 166~172°C

**10).Stability and Reactivity Data**

**Chemical Stability:**

Stable under normal temperatures and pressures.

**Conditions to Avoid:**



## NANJING MSN CHEMICAL CO.,LTD

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TEL:+86-25-57015632 FAX:+86-25-57019235

Incompatible materials, exposure to moist air or water. Temperature above 180°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.



## **NANJING MSN CHEMICAL CO.,LTD**

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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: