

# SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product identifier**

Product name : 4,4'-Methylenebis(cyclohexylamine) (mixture of isomers)  
 CAS No. : 1761-71-3

**Manufacturer or supplier's details**

Company : Heynova (Shanghai) New Material Technology CO., Ltd  
 Address : Building 3, No. 690 Bibo Road, Pudong New Area, Shanghai, China  
 Telephone : +86-178-2110-2608  
 E-mail address : info@heynovachem.com

## 2. HAZARDS IDENTIFICATION


**Emergency Overview**

**Appearance** : Solid form  
**Color** : white  
 Causes severe skin burns and eye damage. Fatal if inhaled. May cause damage to organs (Nervous system). Toxic to aquatic life with long lasting effects.

**GHS Classification**

Acute toxicity (Inhalation) : Category 2  
 Skin corrosion/irritation : Category 1B  
 Serious eye damage/eye irritation : Category 1  
 Specific target organ toxicity - single exposure : Category 2 (Nervous system)  
 Short-term (acute) aquatic hazard : Category 2  
 Long-term (chronic) aquatic hazard : Category 2

**GHS label elements**

Hazard pictograms : 

Signal Word : Danger

Hazard Statements : H314 Causes severe skin burns and eye damage.  
 H330 Fatal if inhaled.  
 H371 May cause damage to organs (Nervous system).  
 H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements : **Prevention:**  
 P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.  
 P264 Wash skin thoroughly after handling.  
 P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P284 Wear respiratory protection.

**Response:**

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

P308 + P311 IF exposed or concerned: Call a POISON CENTER/ doctor.

P363 Wash contaminated clothing before reuse.

P391 Collect spillage.

**Storage:**

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

**Physical and chemical hazards**

Not classified based on available information.

**Health hazards**

Fatal if inhaled. Causes severe skin burns and eye damage. Causes serious eye damage. May cause damage to organs.

**Environmental hazards**

Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

**Additional Labeling**

The following percentage of the mixture consists of ingredient(s) with unknown acute oral toxicity: 97 %

The following percentage of the mixture consists of ingredient(s) with unknown acute dermal toxicity: 97 %

**Other hazards which do not result in classification**

None known.

**COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Substance

**Components**

Chemical name	CAS RN	Concentration (% w/w)
4,4'-Methylenebis(cyclohexylamine)	1761-71-3	97

**3. FIRST AID MEASURES**

If inhaled : Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.

In case of skin contact : Take off all contaminated clothing immediately.  
If on skin, rinse well with water.  
Call a POISON CENTER or doctor/ physician.

In case of eye contact : Rinse with plenty of water.  
If easy to do, remove contact lens, if worn.

	Immediately call a POISON CENTER or doctor/ physician.
If swallowed	: Immediately call a POISON CENTER or doctor/ physician. Rinse mouth. Do NOT induce vomiting.
Most important symptoms and effects, both acute and delayed	: None known.

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#### 4. FIRE-FIGHTING MEASURES

Suitable extinguishing media	: Dry powder, Foam, Water spray, Carbon dioxide (CO <sub>2</sub> )
Specific hazards during fire fighting	: No information available.
Specific extinguishing methods	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Immediately evacuate personnel to safe areas. Remove undamaged containers from fire area if it is safe to do so.
Special protective equipment for fire-fighters	: Use personal protective equipment.

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#### 5. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Wear suitable protective equipment. Keep people away from and upwind of spill/leak. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.
Environmental precautions	: Should not be released into the environment.
Methods and materials for containment and cleaning up	: Pick up and arrange disposal without creating dust.

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#### 6. HANDLING AND STORAGE

##### Handling

Technical measures	: Prevent dispersion of dust.
Local/Total ventilation	: Ensure adequate ventilation. Handle product only in closed system or provide appropriate exhaust ventilation at machinery. Use a local exhaust ventilation.
Advice on safe handling	: Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Wash hands and face thoroughly after handling.
Avoidance of contact	: Oxidizing agents, Strong acids

##### Storage

Conditions for safe storage	: Keep container tightly closed. Store in a cool and shaded area. Keep in a well-ventilated place. Keep under inert gas. Store locked up.
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## 7. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

**Engineering measures** : Install a closed system or local exhaust.  
Also install safety shower and eye bath.

### Personal protective equipment

Respiratory protection : Dustproof gas mask  
Self-contained breathing apparatus

Eye/face protection : Safety glasses  
Safety goggles  
Face-shield

Skin and body protection : Impervious protective clothing

Hand protection : Impervious gloves

\*Use personal protective equipment(PPE) approved under appropriate government standards and follow local and national regulations.

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## 8. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: solid
Color	: white
Odor	: No data available
Odor Threshold	: No data available
pH	: 10.8 (40 °C) Concentration: 1.8 g/l (as aqueous solution)
Melting point/freezing point	: 40 °C
Boiling point/boiling range	: 126 °C (0.4 hPa)
Flash point	: No data available
Evaporation rate	: No data available
Flammability	: No data available
Upper explosion limit / Upper flammability limit	: No data available
Lower explosion limit / Lower flammability limit	: No data available
Vapor pressure	: < 13 Pa (38 °C)
Solubility(ies)	
Water solubility	: insoluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: 3.26
Autoignition temperature	: No data available
Decomposition temperature	: No data available

Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available
Molecular weight	: 210.37 g/mol

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## 9. STABILITY AND REACTIVITY

Reactivity	: No data available
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: None under normal processing.
Conditions to avoid	: Exposure to air.
Incompatible materials	: Oxidizing agents, Strong acids
Hazardous decomposition products	: Carbon monoxide, Carbon dioxide (CO <sub>2</sub> ), Nitrogen oxides (NO <sub>x</sub> )

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## 10. TOXICOLOGICAL INFORMATION

### Acute toxicity

#### Product:

Acute inhalation toxicity	: Assessment: The component/mixture is highly toxic after short term inhalation.
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#### Components:

##### **4,4'-Methylenebis(cyclohexylamine):**

Acute oral toxicity	: LDLo (Rat): 670 mg/kg Assessment: The substance or mixture has no acute oral toxicity
Acute inhalation toxicity	: LC50 (Mouse): 400 mg/m <sup>3</sup> Exposure time: 4 h Test atmosphere: dust/mist Assessment: The component/mixture is highly toxic after short term inhalation.

### Skin corrosion/irritation

#### Product:

Result	: Causes burns.
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#### Components:

##### **4,4'-Methylenebis(cyclohexylamine):**

Result	: Causes burns.
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### Serious eye damage/eye irritation

#### Product:

Result	: Irreversible effects on the eye
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**Components:****4,4'-Methylenebis(cyclohexylamine):**

Result : Irreversible effects on the eye

**Respiratory or skin sensitization** : No information available.

**Germ cell mutagenicity** : No information available.

**Carcinogenicity** : No information available.

**Reproductive toxicity** : No information available.

**STOT-single exposure****Product:**

Target Organs : Nervous system

Assessment : May cause damage to organs.

**Components:****4,4'-Methylenebis(cyclohexylamine):**

Target Organs : Nervous system

Assessment : May cause damage to organs.

**STOT-repeated exposure** : No information available.

**Repeated dose toxicity** : No information available.

**Aspiration toxicity** : No information available.

**RTECS No.** : GX1530000 (4,4'-Methylenebis(cyclohexylamine))

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**11. ECOLOGICAL INFORMATION****Ecotoxicity****Product:****Ecotoxicology Assessment**

Acute aquatic toxicity : Toxic to aquatic life.

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

**Components:****4,4'-Methylenebis(cyclohexylamine):****Ecotoxicology Assessment**

Acute aquatic toxicity : Toxic to aquatic life.

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

**Persistence and degradability**

No data available

**Bioaccumulative potential****Components:****4,4'-Methylenebis(cyclohexylamine):**

Partition coefficient: n-octanol/water : 3.26

**Mobility in soil**

No data available

**Other adverse effects**

No data available

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**12. DISPOSAL CONSIDERATIONS****Disposal methods**

Waste from residues : Disposal in accordance with local and national regulations.  
Entrust disposal to a licensed waste disposal company.

Contaminated packaging : Disposal in accordance with local and national regulations.  
Before disposal of used container, remove contents completely.

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**13. TRANSPORT INFORMATION****International Regulations****IATA-DGR**

UN/ID No. : UN 2928  
Proper shipping name : Toxic solid, corrosive, organic, n.o.s.  
Class : 6.1  
Subsidiary risk : 8  
Packing group : II

**IMDG-Code**

UN number : UN 2928  
Proper shipping name : TOXIC SOLID, CORROSIVE, ORGANIC, N.O.S.  
Class : 6.1  
Subsidiary risk : 8  
Packing group : II  
EmS Code : F-A, S-B

**Domestic regulation****GB 6944/12268**

UN number : UN 2928  
Proper shipping name : TOXIC SOLID, CORROSIVE, ORGANIC, N.O.S.  
Class : 6.1  
Subsidiary risk : 8  
Packing group : II

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**14. REGULATORY INFORMATION****The ingredients of this product are reported in the following inventories:**

CH BAGREG : On the inventory, or in compliance with the inventory

TSCA : All substances listed as active on the TSCA inventory

AICS : On the inventory, or in compliance with the inventory

DSL : All components of this product are on the Canadian DSL

ENCS : On the inventory, or in compliance with the inventory

ISHL : On the inventory, or in compliance with the inventory

KECI	:	On the inventory, or in compliance with the inventory
PICCS	:	On the inventory, or in compliance with the inventory
IECSC	:	On the inventory, or in compliance with the inventory
NZIoC	:	On the inventory, or in compliance with the inventory

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## 15. OTHER INFORMATION

Revision Date	:	2024/10/05
Date format	:	yyyy/mm/dd

### Disclaimer

This SDS was prepared sincerely based on the information obtained, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. The products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling operations, sufficient care should be taken, in addition to the safety measures suitable for the given situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.