

# SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product identifier**

 Product name : 4,4'-Ethylenedianiline  
 CAS No. : 621-95-4

**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**

<b>Appearance</b>	: Solid form
<b>Color</b>	: white - orange
Harmful if swallowed, in contact with skin or if inhaled. Causes skin irritation. Causes serious eye irritation. Suspected of causing genetic defects.	

**GHS Classification**

 Acute toxicity (Oral) : Category 4  
 Acute toxicity (Inhalation) : Category 4  
 Acute toxicity (Dermal) : Category 4  
 Skin corrosion/irritation : Category 2  
 Serious eye damage/eye irritation : Category 2A  
 Germ cell mutagenicity : Category 2

**GHS label elements**

Hazard pictograms :



Signal Word : Warning

 Hazard Statements : H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled.  
 H315 Causes skin irritation.  
 H319 Causes serious eye irritation.  
 H341 Suspected of causing genetic defects.

 Precautionary Statements : **Prevention:**  
 P201 Obtain special instructions before use.  
 P202 Do not handle until all safety precautions have been read and understood.  
 P261 Avoid breathing 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.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.  
P302 + P352 + P312 IF ON SKIN: Wash with plenty of water. Call a POISON CENTER/ doctor if you feel unwell.  
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P308 + P313 IF exposed or concerned: Get medical advice/ attention.  
P332 + P313 If skin irritation occurs: Get medical advice/ attention.  
P337 + P313 If eye irritation persists: Get medical advice/ attention.  
P362 + P364 Take off contaminated clothing and wash it before reuse.

**Storage:**

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**

Harmful if swallowed. Harmful if inhaled. Harmful in contact with skin. Causes skin irritation. Causes serious eye irritation. Suspected of causing genetic defects.

**Environmental hazards**

Not classified based on available information.

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

None known.

---

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Substance

**Components**

Chemical name	CAS RN	Concentration (% w/w)
4,4'-Ethylenedianiline	621-95-4	97

---

**4. FIRST AID MEASURES**

If inhaled : Remove person to fresh air and keep comfortable for breathing.  
Call a POISON CENTER or doctor/ physician if you feel unwell.

In case of skin contact : Take off all contaminated clothing immediately.  
Wash off with soap and plenty of water.  
Call a POISON CENTER or doctor/ physician if you feel unwell.

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

If swallowed : Call a POISON CENTER or doctor/ physician if you feel unwell.  
Rinse mouth.

Most important symptoms and : None known.

effects, both acute and delayed

---

## 5. 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.

---

## 6. 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	:	Prevent product from entering drains.
Methods and materials for containment and cleaning up	:	Pick up and arrange disposal without creating dust.

---

## 7. 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

### Storage

Conditions for safe storage	:	Keep container tightly closed. Store in a cool and shaded area. Keep under inert gas. Store locked up.
-----------------------------	---	---

---

## 8. 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.

---

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	:	solid
Color	:	white - orange
Odor	:	No data available
Odor Threshold	:	No data available
pH	:	No data available
Melting point/freezing point	:	134 °C
Boiling point/boiling range	:	No data available
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	:	No data available
Solubility(ies)		
Water solubility	:	No data available
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Autoignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Molecular weight	:	212.30 g/mol

---

**10. 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
Hazardous decomposition products	:	Carbon monoxide, Carbon dioxide (CO <sub>2</sub> ), Nitrogen oxides (NO <sub>x</sub> )

---

**11. TOXICOLOGICAL INFORMATION****Acute toxicity****Product:**

Acute oral toxicity	:	Assessment: The component/mixture is moderately toxic after single ingestion.
Acute inhalation toxicity	:	Assessment: The component/mixture is moderately toxic after short term inhalation.
Acute dermal toxicity	:	Assessment: The component/mixture is moderately toxic after single contact with skin.

**Components:****4,4'-Ethylenedianiline:**

Acute oral toxicity	:	Assessment: The component/mixture is moderately toxic after single ingestion.
Acute inhalation toxicity	:	Assessment: The component/mixture is moderately toxic after short term inhalation.
Acute dermal toxicity	:	Assessment: The component/mixture is moderately toxic after single contact with skin.

**Skin corrosion/irritation****Product:**

Result	:	Skin irritation
--------	---	-----------------

**Components:****4,4'-Ethylenedianiline:**

Result	:	Skin irritation
--------	---	-----------------

**Serious eye damage/eye irritation****Product:**

Result	:	Eye irritation
--------	---	----------------

**Components:****4,4'-Ethylenedianiline:**

Result	:	Eye irritation
--------	---	----------------

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

**Germ cell mutagenicity**

**Product:**

Germ cell mutagenicity - Assessment : Suspected of inducing heritable mutations in the germ cells of humans.

**Components:**

**4,4'-Ethylenedianiline:**

Germ cell mutagenicity - Assessment : Suspected of inducing heritable mutations in the germ cells of humans.

**Carcinogenicity** : No information available.

**Reproductive toxicity** : No information available.

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

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

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

**Aspiration toxicity** : No information available.

**RTECS No.** : BY0200000 (4,4'-Ethylenedianiline)

---

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Other adverse effects**

No data available

---

## 13. 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.

---

## 14. TRANSPORT INFORMATION

**International Regulations**

**IATA-DGR**

UN/ID No. : Not applicable  
Proper shipping name : Not applicable  
Class : Not applicable  
Subsidiary risk : Not applicable  
Packing group : Not applicable

**IMDG-Code**

UN number : Not applicable  
Proper shipping name : Not applicable  
Class : Not applicable  
Subsidiary risk : Not applicable  
Packing group : Not applicable  
EmS Code : Not applicable

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

UN number : Not applicable  
Proper shipping name : Not applicable  
Class : Not applicable  
Subsidiary risk : Not applicable  
Packing group : Not applicable

---

**15. 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 : Not in compliance with the inventory

DSL : None of the components of this product are on the Canadian DSL,  
but all are on the NDSL

4,4'-Ethylenedianiline

ENCS : Not 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 : Not in compliance with the inventory

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

NZIoC : Not in compliance with the inventory

---

**16. OTHER INFORMATION**

Revision Date : 2024/12/07  
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.