

## Safety Data Sheets (SDSs)

### Section 1 - Identification

- (a) Product identifier: **MOLECULAR SIEVE TYPE 4A**
- (b) Manufacturer name: Shanghai Hengye Molecular Sieve Co., Ltd.  
Address: No.12 Guangda Road, Qingcun Town, Fengxian District, Shanghai 201414, China  
Tell: +86 21 5756 8588 Fax: +86 21 5756 8970
- (c) Emergency phone number: +0086 13501660751
- (d) Recommended use: Used for adsorption, separation, drying.
- (e) Restriction on use: No information available.

### Section 2 – Hazard(s) identification

- (a) Classification of the chemical  
This product is not classified as hazardous.
- (b) Label elements  
This product is not classified as hazardous.  
Pictogram(s): No pictogram.  
Signal word: No signal word.  
Hazard statements: No hazard statement.  
Precautionary statements: No precautionary statement.
- (c) Description of any hazards not otherwise classified  
No information available.
- (d) Ingredient with unknown acute toxicity  
No information available.

### Section 3 – Composition / information on ingredients

Chemical Name	Percent (by weight)	CAS No.
Silicon Oxide (Synthetic)	< 60%	7631-86-9
Sodium Oxide	< 40%	1313-59-3
Aluminum Oxide	< 40%	1344-28-1



Magnesium Oxide	< 5%	1309-48-4
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#### Section 4 – First-aid Measures

- (a) Most important symptoms/effects, acute and delayed  
Inhalation: Cough.  
If product gets in eyes contact: Redness. Pain.  
If ingested: Abdominal pain.
- (b) Description of first aid measures  
Eye contacts: Immediately flush eyes with plenty of water for at least 15 minutes.  
Skin contact: Wash exposed skin with soap and water. If irritation develops, seek medical attention.  
Ingestion: If the material is swallowed, get immediate medical attention or advice. Never give anything by mouth to an unconscious person. If conscious and alert, give several glasses of water or milk.  
Inhalation: Remove from expose and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if necessary.
- (c) Immediate medical attention and special treatment  
Attending physician should treat exposed patients symptomatically.

#### Section 5 – Fire-fighting Measures

- (a) Extinguishing media  
Suitable extinguishing media: Use fire extinguishing methods suitable to surrounding conditions.  
Unsuitable extinguishing media: Water with full jet.
- (b) Special hazards arising from the chemical  
No particular hazards known.
- (c) Special protective equipment and precautions for fire-fighters  
Firefighters must wear fire resistant protective equipment. Wear self-contained breathing apparatus.

#### Section 6 – Accidental release Measures

- (a) Personal precautions, protective equipment and emergency procedures  
Refer to SECTION 8 for personal protective equipment. Prevention of skin and eye contact. Ensure adequate ventilation.
- (b) Methods and materials for containment and cleaning up



Sweep the spill area; avoid raising dust. Provide ventilation.

## Section 7 – Handling and Storage

### (a) Precautions for safe handling

Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work.

Dust and/or fine particles, minimize inhalation exposure.

Remove contaminated clothing and shoes. Wash clothing before re-using. Avoid dust production. Vacuum systems are provided if dust is formed. Any unavoidable deposit of dust must be regularly removed.

### (b) Conditions for safe storage, including any incompatibilities

Keep packaging closed when not in use.

Store in dry protected location to prevent any moisture contact.

Incompatible materials: Strong acids, bases.

## Section 8 – Exposure controls / Personal protection

### (a) Permissible Exposure Limits (PELs):

CAS# 1344-28-1

- PEL-TWA 15mg/m<sup>3</sup> (OSHA, total) 5mg/m<sup>3</sup> (OSHA, resp)

CAS# 7631-86-9

- PEL-TWA 15mg/m<sup>3</sup> (OSHA, total) 5mg/m<sup>3</sup> (OSHA, resp) 5mg/m<sup>3</sup> (OSHA, fume)
- TLV-TWA 6mg/m<sup>3</sup> (ACGIH)

### (b) Monitoring Methods: No information found.

### (c) Appropriate engineering controls:

Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. Equipped with safety shower and eyes bath.

### (d) Personal Protective Equipment (PPE):

- Eyes: Wear appropriate protective eyeglasses or chemical safety goggles.
- Skin: Wear appropriate protective gloves to prevent skin exposure.
- Clothing: Working clothing is suggested.
- Respirators: It is suggested to use an appropriate respirator if dust in the air or if irritation or other symptoms are experienced.

## Section 9 – Physical and Chemical properties

Form:

Solid



Color:	Tan
Odor:	None
pH:	8~11 (AS)
Boiling Point/range:	N/A
Melting Point/range:	N/A
Decomposition Temperature:	N/A
Density:	0.5~0.9 g/mL
Ignition Temperature:	N/A
Solubility:	Soluble in acid or soda, insoluble in water

### Section 10 – Stability and Reactivity

- (a) Chemical Stability: Stable under normal condition.
- (b) Reactivity: Stable under recommended storage and handling conditions (see section 7, handling and storage).
- (c) Conditions to Avoid: The addition of the moisture (water) without flooding can cause rise in temperature from heat of adsorption, and contact with skin might result in burns.
- (d) Incompatibilities materials: Sudden contact with high concentrations of chemicals having high heats of adsorption such as olefins, HCl, etc.

### Section 11 – Toxicological information

- (a) Information on the likely routes of exposure
  - Inhalation: Cough.
  - Ingestion: Abdominal pain.
  - Eye contact: Redness. Pain.
- (b) Information on toxicological characteristics
  - CAS# 1344-28-1
    - LD50: >5000 mg/Kg (oral, rat)
  - CAS# 7631-86-9
    - LD50: >5510 mg/Kg (oral, rat)
    - LD50: >5000 mg/Kg (dermal, rabbit)
  - Carcinogenicity: Not listed by ACGIH, IARC, NTP, or CA Prop 65.
  - Sensitization Rate: Not available.
  - Teratogenicity: Not available.

### Section 12 – Ecological information



Ecological Toxicity: Not available.  
 Ecological Degradation: Not available.  
 Abiology Degradation: Not available.  
 Aquatic Toxicity: Not available.

**Section 13 – Disposal considerations**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**Section 14 – Transport information**

Not regulated as a hazardous material for transportation. (D.O.T; TDG; IMDG; IATA; DGR)

UN: N/A  
 Classification: N/A  
 Packaging Sign: N/A  
 Shipping Name: N/A  
 Packaging Category: N/A  
 Packaging Method: N/A  
 Shipping Notice: N/A

**Section 15 – Regulatory information**

Regulatory Information:

Reference to the local, national and EU / international regulations.

(a) Safety, health and environmental regulations specific for the product in question

<b>CAS No.</b>	<b>USA TSCA</b>	<b>EU EINECS</b>	<b>Korea ECL</b>	<b>China IECSC</b>	<b>Canada DSL</b>
1318-02-1	Listed	Listed	Listed	Listed	Not Listed
Remark: The above-mentioned search results are based on the Non-Confidential Inventory.					

EU REACH: The substance has been registered under REACH Regulation.

**Section 16 – Other information**

(a) Preparation and revision information

Issue Time: 2015-5-19



Issue Department: Technical Department

Date review unit:

Modification record:

(b) Abbreviations and acronyms

TSCA	Toxic Substances Control Act, The American chemical inventory.
DSL	Domestic Substances List
EINECS	European Inventory of Existing Commercial chemical Substances
ECL	Existing Chemicals List, the Korean chemical inventory.
IECSC	Inventory of existing chemical substances in China.

(c) Disclaimer

The information in this SDS is provided all the relevant data fully and truly. However, the information is provided without any warranty on their absolute extensiveness and accuracy. This SDS was prepared to provide safety preventive measures for the users who have got professional training. The personal user who obtained this SDS should make independent judgment for the applicability of this SDS under special conditions. In these special cases, we do not assume responsibility for the damage.

----- End of the SDS -----