

# Molecular Sieve-type 4A

## Safety Data Sheet

according to Regulation (EU) 2015/830  
Date of issue: 10/6/2015 Revision date: 3/23/2022

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Substance  
Trade name : Molecular Sieve-type 4A  
EC-No. : 930-915-9  
CAS-No. : 1318-02-1  
REACH Reg No : 01-2119429034-49-\*\*\*\*  
Formula : Unspecified  
Synonyms : Aluminosilicates, zeolites / Zeolites / ZEOLITE / Zeolite, cuboidal, crystalline, synthetic, non-fibrous / Zeolite (insoluble inorganic) / Zeolite, cuboidal, crystalline, synthetic, non fibrous, thermally produced

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### 1.2.1. Relevant identified uses

Main use category : For drying of industrial gas, purification of gas of raw materials in separation plant (while removing water and carbon dioxide and some hydrocarbons)

##### 1.2.2. Uses advised against

Restrictions on use : No information available

#### 1.3. Details of the supplier of the safety data sheet

Only Representative: REACH24H CONSULTING GROUP  
Address: Paramount Court, Corrig Road, Sandyford, Dublin 18, Ireland  
E-mail: Info@reach24h.com

Manufacturer: Shanghai Hengye Molecular Sieve Co., Ltd.  
Address: No.12,Guangda Road,Fengxian District, Shanghai 201414, P.R.C.  
E-mail: jianwei@hyms.com.cn  
Telephone: +86-21-57568588-8001  
Fax: +86-21-57568970

#### 1.4. Emergency telephone number

Emergency number : 8621-57568588

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

##### Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

#### 2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Silicon Oxide (Synthetic)	(CAS-No.) 7631-86-9	<60	Not classified
Sodium Oxide	(CAS-No.)1313-59-3	<40	Not classified
Aluminum Oxide	(CAS-No.)1344-28-1	<40	Not classified

#### 3.2. Mixtures

Not applicable

**SECTION 4: First aid measures****4.1. Description of first aid measures**

First-aid measures general	: In all cases of doubt, or when symptoms persist, seek medical attention.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell.
First-aid measures after skin contact	: Gently wash with plenty of soap and water. Take off contaminated clothing.
First-aid measures after eye contact	: Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell. Rinse mouth.

**4.2. Most important symptoms and effects, both acute and delayed**

Symptoms/effects : No information available.

**4.3. Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

**SECTION 5: Firefighting measures****5.1. Extinguishing media**

Suitable extinguishing media	: Water spray. Dry powder. Foam.
Unsuitable extinguishing media	: No information available.

**5.2. Special hazards arising from the substance or mixture**

No information available

**5.3. Advice for firefighters**

Precautionary measures fire	: Eliminate all ignition sources if safe to do so. Evacuate personnel to a safe area. Ensure adequate ventilation, especially in confined areas.
Firefighting instructions	: Keep upwind. Complete protective clothing.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****6.1.1. For non-emergency personnel**

Protective equipment	: Wear personal protective equipment.
Emergency procedures	: Ventilate spillage area.

**6.1.2. For emergency responders**

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
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**6.2. Environmental precautions**

Avoid release to the environment.

**6.3. Methods and material for containment and cleaning up**

Methods for cleaning up	: Sweep up or vacuum up the product. Avoid raising dust.
Other information	: Dispose of materials or solid residues at an authorized site.

**6.4. Reference to other sections**

. For further information refer to section 13.

**SECTION 7: Handling and storage****7.1. Precautions for safe handling**

Precautions for safe handling	: Avoid dust formation. Ensure good ventilation of the work station. Wear personal protective equipment. Provide good ventilation in process area to prevent formation of flammable vapour. Handle in accordance with good industrial hygiene and safety practice.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Keep away from food, drink and animal feeding stuffs.

**7.2. Conditions for safe storage, including any incompatibilities**

Storage conditions	: Store in a well-ventilated place. Keep cool. Store in tightly closed containers. Store in a dry area.
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**7.3. Specific end use(s)**

No information available

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Zeolites (1318-02-1)****DNEL/DMEL (Workers)**

Long-term - systemic effects, dermal	2.5 - 3 mg/kg bodyweight/day
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<b>Zeolites (1318-02-1)</b>	
Long-term - local effects, inhalation	3 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Long-term - systemic effects, oral	1.25 - 1.5 mg/kg bodyweight/day
Long-term - systemic effects, dermal	1.25 - 1.5 mg/kg bodyweight/day
Long-term - local effects, inhalation	0.0033 mg/m <sup>3</sup>
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	3.2 mg/l
PNEC aqua (marine water)	0.32 mg/l
PNEC aqua (intermittent, marine water)	> 1 mg/l
<b>PNEC (Soil)</b>	
PNEC soil	600 mg/kg dwt
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	95 mg/l

## 8.2. Exposure controls

### Appropriate engineering controls:

Do not breathe dust. Provide local exhaust or general room ventilation. Provide adequate ventilation to minimize dust concentrations.

### Hand protection:

Protective gloves

### Eye protection:

Safety glasses

### Skin and body protection:

Wear suitable protective clothing

### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Dust mask

### Environmental exposure controls:

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: Grey.
Odour	: odourless.
Odour threshold	: No data available
pH	: 9 - 11
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 1414 °C
Freezing point	: Not applicable
Boiling point	: 2900 °C
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: Not applicable
Density	: 0.5-0.9g/cm <sup>3</sup>
Solubility	: insoluble in water.
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

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Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: Not applicable

**9.2. Other information**

No additional information available

**SECTION 10: Stability and reactivity****10.1. Reactivity**

The product is non-reactive under normal conditions of use, storage and transport.

**10.2. Chemical stability**

Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

No dangerous reactions known under normal conditions of use.

**10.4. Conditions to avoid**

Avoid creating or spreading dust. Incompatible materials. Moisture.

**10.5. Incompatible materials**

Strong acids. Strong bases.

**10.6. Hazardous decomposition products**

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**SECTION 11: Toxicological information****11.1. Information on toxicological effects**

Acute toxicity (oral)	: Not classified.
Acute toxicity (dermal)	: Not classified.
Acute toxicity (inhalation)	: Not classified.

**Zeolites (1318-02-1)**

LD50 oral rat	> 5110 mg/kg bodyweight
LD50 dermal rabbit	> 2000 mg/kg bodyweight
LC50 inhalation rat (mg/l)	> 3.35 mg/l/4h

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: NOAEL $\geq$ 60 mg/kg bw/day (nominal), no effects.

Reproductive toxicity	: Not classified
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**Zeolites (1318-02-1)**

NOAEL (male)	$\geq$ 2
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STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

**SECTION 12: Ecological information****12.1. Toxicity**

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Acute aquatic toxicity	: Not classified.
Chronic aquatic toxicity	: Not classified

**Zeolites (1318-02-1)**

NOEC fish	680 mg/l Pimephales promelas
EC50 Daphnia	2808 mg/l (24h)-Daphnia magna
EC50 96h algae	18 mg/l Desmodesmus subspicatus
NOEC (chronic)	32 mg/l (21d)-Daphnia magna
NOEC chronic fish	> 86.7 mg/l (30d)-Pimephales promelas

**12.2. Persistence and degradability**

<b>Zeolites (1318-02-1)</b>	
Persistence and degradability	No information available.

**12.3. Bioaccumulative potential**

<b>Zeolites (1318-02-1)</b>	
Bioaccumulative potential	0.59-0.95

**12.4. Mobility in soil**

<b>Zeolites (1318-02-1)</b>	
Ecology - soil	No information available.

**12.5. Results of PBT and vPvB assessment**

<b>Component</b>	
Zeolites (1318-02-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

**12.6. Other adverse effects**

No additional information available

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.  
 Sewage disposal recommendations : Disposal must be done according to official regulations.  
 Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.  
 Ecology - waste materials : Avoid release to the environment.

**SECTION 14: Transport information**

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.2. UN proper shipping name</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.3. Transport hazard class(es)</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.4. Packing group</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.5. Environmental hazards</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated

**14.6. Special precautions for user**

**Overland transport**

Not regulated

**Transport by sea**

Not regulated

**Air transport**

Not regulated

**Inland waterway transport**

Not regulated

**Rail transport**

Not regulated

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****15.1.1. EU-Regulations**

No REACH Annex XVII restrictions

Zeolites is not on the REACH Candidate List

Zeolites is not on the REACH Annex XIV List

Zeolites is not subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Zeolites is not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC

**15.1.2. National regulations**

Listed on the AICS (Australian Inventory of Chemical Substances)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Listed on the Korean ECL (Existing Chemicals List)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

**Germany**

Reference to AwSV : Water hazard class (WGK) nwg, Non-hazardous to water (ID No. 805)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

**Netherlands**

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

**15.2. Chemical safety assessment**

A chemical safety assessment has been carried out

No chemical safety assessment has been carried out

**SECTION 16: Other information****Abbreviations and acronyms:**

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
EC50	Median effective concentration
LC50	Median lethal concentration
LD50	Median lethal dose

Data sources : ECHA reference. Loli.

Training advice : Normal use of this product shall imply use in accordance with the instructions on the packaging.

**SDS EU (REACH Annex II)**

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*