

## Chemical Safety Data Sheet MSDS / SDS

## MOLECULAR SIEVE

Revision Date:2026-03-21 Revision Number:1

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

**Product identifier**

Product name : MOLECULAR SIEVE  
CBnumber : CB9330195  
CAS : 1344-00-9  
EINECS Number : 215-684-8  
Synonyms : SODIUM ALUMINOSILICATE;MOLECULAR SIEVE 4A

**Relevant identified uses of the substance or mixture and uses advised against**

Relevant identified uses : For R&D use only. Not for medicinal, household or other use.  
Uses advised against : none

**Company Identification**

Company : Chemicalbook  
Address : Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing  
Telephone : 010-86108875

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## SECTION 2: Hazards identification

**GHS Label elements, including precautionary statements**

Symbol(GHS) : No data available  
Signal word : No data available

**Precautionary statements**

No data available

**Hazard statements**

No data available

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## SECTION 3: Composition/information on ingredients

**Substance**

Product name : MOLECULAR SIEVE  
Synonyms : SODIUM ALUMINOSILICATE;MOLECULAR SIEVE 4A  
CAS : 1344-00-9

EC number : 215-684-8  
MF : AlNaO6Si2  
MW : 202.139

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## SECTION 4: First aid measures

### **If inhaled**

After inhalation: fresh air.

### **In case of skin contact**

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

### **In case of eye contact**

After eye contact: rinse out with plenty of water. Remove contact lenses.

### **If swallowed**

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

### **Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

### **Protection of first-aiders**

For personal protection see section 8.

### **Notes to physician**

No data available

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## SECTION 5: Firefighting measures

### **Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### **Unsuitable extinguishing media**

For this substance/mixture no limitations of extinguishing agents are given.

### **Specific hazards during fire fighting**

Not combustible. Ambient fire may liberate hazardous vapours.

### **Hazardous combustion products**

Nature of decomposition products not known.

### **Specific extinguishing methods**

none

## Special protective equipment for fire-fighters

In the event of fire, wear self-contained breathing apparatus.

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## SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert. Advice for emergency responders: For personal protection see section 8.

### Environmental precautions

No special precautionary measures necessary.

### Methods and materials for containment and cleaning up

Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

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## SECTION 7: Handling and storage

### Handling

#### Avoidance of contact

Strong oxidizing agents

### Storage

#### Further information on storage conditions

Tightly closed. Dry.

#### Storage class

13, Non Combustible Solids

#### Recommended storage temperature

Recommended storage temperature see product label.

#### Further information on storage stability

Exposure to moisture.

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## SECTION 8: Exposure controls/personal protection

### control parameter

#### Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

### Engineering measures

No data available

### Personal protective equipment

**Respiratory protection**

required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

**Recommended Filter type**

Filter type P1

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

**Eye/face protection**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Safety glasses

**Hand protection****Material**

Nitrile rubber

**Break through time**

480 min

**Glove thickness**

0.11 mm

**Protective index**

Full contact

**Manufacturer**

(KCL 740 / Aldrich Z677272, Size M)

**Material**

Nitrile rubber

**Break through time**

480 min

**Glove thickness**

0.11 mm

**Protective index**

Splash contact

**Manufacturer**

(KCL 740 / Aldrich Z677272, Size M)

**Manufacturer**

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

**Remarks**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

**Hygiene measures**

Change contaminated clothing. Wash hands after working with substance.

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## SECTION 9: Physical and chemical properties

### Information on basic physicochemical properties

solid

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#### Color

No data available

#### Odor

at 100.00%. odorless

#### Odor Threshold

No data available

#### pH

10.1 (20 °C)

Concentration: 50 g/l

#### Melting point/ range

No data available

#### Boiling point/boiling range

No data available

#### Flash point

Not applicable

#### Evaporation rate

No data available

#### Flammability (solid, gas)

The product is not flammable.

#### Flammability (liquids)

No data available

#### Burning rate

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

### **Relative vapor density**

No data available

### **Relative density**

2.05[at 20 °C]

### **Density**

2.02 g/cm<sup>3</sup> (25 °C)

### **Water solubility**

0.07 g/l (20 °C)

Method: Regulation (EC) No. 440/2008, Annex, A.6

### **Partition coefficient: n-octanol/water**

Not applicable for inorganic substances

### **Autoignition temperature**

No data available

### **Decomposition temperature**

No data available

### **Viscosity, dynamic**

No data available

### **Viscosity, kinematic**

No data available

### **Flow time**

No data available

### **Explosive properties**

No data available

### **Oxidizing properties**

none

### **Particle characteristics Particle size**

No data available

### **Physical state**

powder

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## SECTION 10: Stability and reactivity

### Reactivity

No data available

### Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

### Possibility of hazardous reactions

No data available

### Conditions to avoid

no information available

### Incompatible materials

Strong oxidizing agents

### Hazardous decomposition products

In the event of fire: see section 5

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - male and female - > 10,000 mg/kg (OECD Test Guideline 401)

Inhalation: No data available

Dermal: No data available

#### Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation

#### Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation

Remarks: (ECHA)

#### Respiratory or skin sensitization

No data available

#### Germ cell mutagenicity

Test Type: Ames test

Test system: S. typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Test system: Chinese hamster ovary cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 473

Result: Equivocal evidence.

Test Type: Chromosome aberration test in vitro

Test system: Lungs

Metabolic activation: without metabolic activation

Method: OECD Test Guideline 473

Result: negative

Test Type: in vivo assay

Species: Rat

Application Route: Oral

Method: OECD Test Guideline 475

Result: negative

Test Type: Cytogenetic assay

Species: Rat

Application Route: Oral

Method: OECD Test Guideline 478

Result: negative

#### **Carcinogenicity**

No data available

#### **Reproductive toxicity**

No data available

#### **Specific target organ toxicity - single exposure**

No data available

#### **Specific target organ toxicity - repeated exposure**

No data available

#### **Aspiration hazard**

No data available

### **11.2 Additional Information**

Repeated dose toxicity - Rat - male and female - Oral - LOAEL (Lowest observed adverse effect level) - 7.5 mg/kg

RTECS: VV8902500

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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## **SECTION 12: Ecological information**

### **Ecotoxicity**

#### **Components:**

#### **Silicic acid, aluminum sodium salt:**

**Toxicity to fish**

(Danio rerio (zebra fish)): Test Type: static test Remarks: No data available

**Toxicity to daphnia and other aquatic invertebrates**

Remarks: No data available

**Persistence and degradability****Components:****Silicic acid, aluminum sodium salt:****Biodegradability**

Remarks: Not applicable for inorganic substances

**Bioaccumulative potential****Components:****Silicic acid, aluminum sodium salt:****Partition coefficient: octanol/water**

Remarks: Not applicable for inorganic substances

**Mobility in soil**

No data available

**Other adverse effects**

No data available

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## SECTION 13: Disposal considerations

**Disposal methods****Waste from residues**

Offer surplus and non-recyclable solutions to a licensed disposal company.

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## SECTION 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

Labels : Not applicable

Packing instruction (cargo aircraft) : Not applicable

Packing instruction (passenger aircraft) : Not applicable

### **IMDG-Code**

UN number : Not applicable

Proper shipping name : Not applicable

Class : Not applicable

Subsidiary risk : Not applicable

Packing group : Not applicable

Labels : Not applicable

EmS Code : Not applicable

Marine pollutant : no

### **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

National regulation

### **JT/T 617**

UN number : Not applicable

Proper shipping name : Not applicable

Class : Not applicable

Subsidiary risk : Not applicable

Packing group : Not applicable

Labels : Not applicable

Environmentally hazardous : no

### **Special precautions for user**

Remarks : Not classified as dangerous in the meaning of transport regulations.

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## **SECTION 15: Regulatory information**

### **National regulatory information**

### **Law on the Prevention and Control of Occupational Diseases**

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## **SECTION 16: Other information**

### **Full text of other abbreviations**

#### **ACGIH**

USA. ACGIH Threshold Limit Values (TLV)

**ACGIH / TWA AIC - Australian Invent Transport by Land of Bra bw - Body weight; CMR Standard of the German List (Canada); ECx - Conc associated with x%respo Chemical Substances (Jap response; ERG - Emerge GLP - Good Laboratory P cer; IATA -**

International Construction and Equipment Half maximal inhibitory concentration; IECSC - International Maritime Dangerous Goods Industrial Safety and Health Standardization; KECl - Kateration to 50 % of a test (Median Lethal Dose); MA - Migration from Ships; n.o.s. No Observed (Adverse) Effect Level; NOELR - No Norm; NTP - National Toxicity; OECD - Organization for Chemical Safety and Toxic substance; PIC - Pesticides; (Q)SAR - (Quantitative) (EC) No 1907/2006 of the Registration, Evaluation, Authorisation and Restriction of Chemical Substances Inventory of Existing Chemical Substances; UN - United Nations Transport of Dangerous Goods WHMIS - Workplace Hazardous Materials Information System  
 8-hour, time-weighted average concentration of Industrial Chemicals  
 ANTT - National Agency for Toxic Substances  
 ASTM - American Society for the Testing of Materials  
 - Carcinogen, Mutagen or Reproductive Toxicant  
 DIN - Institute for Standardisation  
 DSL - Domestic Substances Notification associated with x% response  
 ELx - Loading rate se  
 EmS - Emergency Schedule  
 ENCS - Existing and New n)  
 ErCx - Concentration associated with x% growth rate cy Response Guide  
 GHS - Globally Harmonized System  
 actice  
 IARC - International Agency for Research on Cancer Transport Association  
 IBC - International Code for the Construction of Ships carrying Dangerous Chemicals in Bulk  
 IC50 - Concentration  
 ICAO - International Civil Aviation Organization- Existing Chemical Substances in China  
 IMDG - International Maritime Goods  
 IMO - International Maritime Organization  
 ISHL - International Law (Japan)  
 ISO - International Organisation for Standardization Existing Chemicals Inventory  
 LC50 - Lethal Concentration  
 LD50 - Lethal Dose to 50% of a test population POL - International Convention for the Prevention of Pollution from Ships - Not Otherwise Specified  
 Nch - Chilean Norm  
 NO(A)EC - No Observed (Adverse) Effect Concentration  
 NO(A)EL - No Observed (Adverse) Effect Loading Rate  
 NOM - Official Mexican Nomenclature Program  
 NZIoC - New Zealand Inventory of Chemicals for Economic Co-operation and Development  
 OPPTS - Office of Pollution Prevention and Control  
 PBT - Persistent, Bioaccumulative and Toxic - Philippines Inventory of Chemicals and Chemical Substances) Structure Activity Relationship  
 REACH - Regulation European Parliament and of the Council concerning the restriction and Restriction of Chemicals  
 SADT - Self-Heating Temperature  
 SDS - Safety Data Sheet  
 TCSI - Taiwan Chemical Safety Information  
 TDG - Transportation of Dangerous Goods  
 TECS - Inventory  
 TSCA - Toxic Substances Control Act (United States)  
 UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods  
 vPvB - Very Persistent and Very Bioaccumulative

**Disclaimer:**

The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.