

**MOLECULAR SIEVE**

Version 1.0

Revision Date 19.05.2009

Print Date 19.05.2009

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**Product information**

Trade name : MOLECULAR SIEVE

Use of the Substance/Preparation : Desiccant

Company : OKER-CHEMIE GMBH
Im Schleeke 77
38642 Goslar
Germany

Telephone : +49 (0)53 21 - 7 51-34 15

E-mail address : infoSDS@hcstarck.com

Responsible Department : Corporate HSEQ & SIS - Product Safety

Emergency telephone : +49(0)551/19240

2. HAZARDS IDENTIFICATION**Classification**

No classification

Additional risk advice to man and the environment

The product has an adsorbent effect and may cause dehydration in case of prolonged skin contact.
Intensive evolution of heat in contact with water.

3. COMPOSITION/INFORMATION ON INGREDIENTS**Chemical nature**

Preparation

Hazardous components

Chemical Name	CAS-No.	EC-No.	Symbol(s)	R-phrase(s)	Concentration [%]
Zeolithe	1318-02-1	215-283-8			>= 99

4. FIRST AID MEASURES

If inhaled : Remove to fresh air.
If symptoms persist, call a physician.

In case of skin contact : Wash off with soap and water.
If skin irritation occurs, seek medical advice/attention.

In case of eye contact : Rinse with plenty of water.
If eye irritation persists, consult a specialist.



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If swallowed : Clean mouth with water and drink afterwards plenty of water.
Obtain medical attention.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media** : Extinguishing methods depends upon fire in vicinity poses.
The product itself does not burn.
- Extinguishing media which shall not be used for safety reasons** : None known.
- Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases** : None known.
- Special protective equipment for fire-fighters** : In the event of fire, wear self-contained breathing apparatus.
- Additional advice** : Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions** : Avoid formation and deposition of dust.
Use personal protective equipment.
- Environmental precautions** : Do not flush into surface water or sanitary sewer system.
- Methods for cleaning up** : Use mechanical handling equipment.
Avoid dust formation.
Fill into labelled, sealable containers.

7. HANDLING AND STORAGE

Handling

- Advice on safe handling** : Avoid dust formation.
Ensure adequate ventilation and, if necessary, exhaust ventilation when handling or transferring the product.
Ensure that the occupational exposure limit value/s (OEL) and/or other limit values are complied with.
- Advice on protection against fire and explosion** : Take precautionary measures against static discharges.

Storage

- Requirements for storage areas and containers** : Comply with the directives governing water law



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Further information on storage conditions : Store in tightly closed containers in a dry place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limit Values

ALUMINIUM OXIDES, RESPIRABLE DUST; CAS-No.: 1318-02-1

Basis : EH40 (UK)
Threshold limits
TWA : 4 mg/m³ Respirable dust

Zeolithes; CAS-No.: 1318-02-1

Basis : OEL (EU)
Note : No limit value established.

Personal protective equipment

Respiratory protection : Respiratory protective device with particle filter EN 143 - P2

Hand protection : Glove material: Butyl-rubber, Natural rubber, Nitrile rubber
 The data about break through time/strength of material is not valid for undissolved solids/dust.

Eye protection : Safety glasses

Body Protection : Protective suit

General protective measures : Handle in accordance with good industrial hygiene and safety practice. Keep working clothes separately.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form : spherical
 hygroscopic

Color : beige

Odor : odorless

Safety data

pH : 7 - 11
 at 20 °C

Change in physical state

- **Melting point/range** : 2.000 °C

Burning number : 1
 Method: VDI 2263



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Flammability (solid, gas) : not highly flammable
Method: Directive 67/548/EEC Annex V, A.10.

Flammability (contact with water) : not highly flammable
Method: Directive 67/548/EEC Annex V, A.12.

Dust explosibility : no data available

Explosion limits

- **Lower explosion limit** : no data available

Auto-flammability : not auto-flammable
Method: Directive 67/548/EEC Annex V, A.16.

Density : 2,1 g/cm³

Bulk density : 400 - 1.000 kg/m³

Solubility

- **Water solubility** : insoluble

10. STABILITY AND REACTIVITY

Conditions to avoid : None known.

Materials to avoid : None known.

Thermal decomposition : not applicable

Hazardous decomposition products : No hazardous decomposition products are known.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity
Zeolithe : LD50 rat > 5.110 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity
Zeolithe : LC50 rat > 18,3 mg/l / 1 h
Method: No information available.

Acute dermal toxicity
Zeolithe : LD50 rabbit > 2.000 mg/kg

Skin irritation
Zeolithe : No skin irritation

Eye irritation
Zeolithe : Mild eye irritation

Repeated dose toxicity
Zeolithe : rat Oral
Exposure time: 90-day
NOEL: 5.000 mg/kg

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12. ECOLOGICAL INFORMATION**Toxicity to fish**

Zeolithe : Brachydanio rerio (zebra fish)
LC50 1.800 mg/l
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates.

Zeolithe : Daphnia magna (Water flea)
EC50 2.808 mg/l
Method: OECD Test Guideline 202

Toxicity to algae

Zeolithe : Scenedesmus subspicatus
4 d EC50 18 mg/l
Method: OECD Test Guideline 201

Toxicity to bacteria

Zeolithe : Pseudomonas putida
EC50 1.550 mg/l / 16 h

13. DISPOSAL CONSIDERATIONS

Product : The Federal, regional and local rules and regulations governing disposal must be complied with.
: This product cannot be classified with disposal identification key acc. to the EU disposal directives as a classification results from the intended utilisation purpose of the consumer

Packaging : Packaging that is not contaminated and has been cleaned can be recycled.

14. TRANSPORT INFORMATION**Land transport ADR/RID**

Not dangerous goods

Air transport ICAO-TI/IATA-DGR

Not dangerous goods

Sea transport IMDG

Not dangerous goods

15. REGULATORY INFORMATION**Labelling according to EC Directives****Directive 67/548/EEC**

Labelling required



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Hazardous components which must be listed on the label:

contains :
Zeolithe

S-phrase(s)

S29 Do not empty into drains.

National legislation

Major Accident Hazard Legislation : 96/82/EC
Annex I
Number: Is not subject to the Seveso II Directive.

16. OTHER INFORMATION

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. The above details do not imply any guarantee concerning composition, properties or performance.

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