

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

Identification of the substance	Zeochem Adsorbents / beads and pellets
Registration number (REACH)	01-2119429034-49-xxxx
EC number	930-915-9
CAS number	1318-02-1

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

Relevant identified uses	Adsorbent Desiccant Molecular sieves
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1.3 Details of the supplier of the safety data sheet

Zeochem AG
Joweid 5
CH-8630 Rüti
Switzerland

Telephone: +41 44 922 93 93
e-Mail: info@zeochem.com
Website: <https://www.zeochem.com>

Manufacturer:

Zeochem LLC
1360 S. 12th St.
Louisville, KY40210
U.S.A.

Jiangsu Zeochem Technology Co. Ltd
1089 Jingdu Ave.
Lianyungang, Jiangsu
CN 222300
P.R.China

1.4 Emergency telephone number

Poison centre		
Country	Name	Telephone
international	CHEMTREC (worldwide)	+1 703 741 5500 - 24h/7d (toll free)
Switzerland	Toxzentrum Zürich / Tox. Info Suisse	+41 44 251 51 51 / CH: 145 - 24h/7d
United States	CHEMTREC USA	+1 800 424 9300 - 24h/7d

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture**

Classification acc. to GHS

Section	Hazard class	Category	Hazard class and category	Hazard statement
3.1D	acute toxicity (dermal)	5	Acute Tox. 5	H313
3.8R	specific target organ toxicity - single exposure (respiratory tract irritation)	3	STOT SE 3	H335

For full text of abbreviations: see SECTION 16.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

- Signal word warning

2.2.1.2 Pictograms

GHS07	
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Hazard statements	
H313	may be harmful in contact with skin
H335	may cause respiratory irritation

Precautionary statements	
P261	avoid breathing dust/fume/gas/mist/vapours/spray
P271	use only outdoors or in a well-ventilated area
P302+P317	IF ON SKIN: Get medical help
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing
P312	call a POISON CENTER/doctor if you feel unwell
P403+P233	store in a well-ventilated place. Keep container tightly closed
P405	store locked up
P501	dispose of contents/container in accordance with local/regional/national/international regulations

- Supplemental hazard information
CDust001 May form explosible dust-air mixture if dispersed.

2.3 Other hazards

Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of $\geq 0,1\%$.

SECTION 3: Composition/information on ingredients**3.1 Components**

Name of substance	Zeolite
Purity	≥70 %

Ingredients				
Name of substance	CAS No	EC No	Wt%	Classification acc. to GHS
Clay binder			≤ 30	

Remarks

For full text of abbreviations: see SECTION 16

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

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician. Provide fresh air.

Following skin contact

Rinse skin with water/shower.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

none

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

Suitable extinguishing media

Water

Unsuitable extinguishing media

no information available

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

None

5.3 Advice for firefighters

Non-combustible. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains, Take up mechanically

Advice on how to clean up a spill

Take up mechanically.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

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

Recommendations

Store in a dry place.

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

- Explosive atmospheres

Removal of dust deposits.

- Ventilation requirements

Use local and general ventilation.

7.3 Specific end use(s)

See section 16 for a general overview.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)
this information is not available

Human health values

Relevant DNELs and other threshold levels				
Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
DNEL	2 mg/cm ³	human, oral	worker (industry)	acute - local effects

Environmental values

Relevant PNECs and other threshold levels				
Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
PNEC	3,2 mg/l	aquatic organisms	freshwater	short-term (single instance)
PNEC	0,32 mg/l	aquatic organisms	marine water	short-term (single instance)
PNEC	95 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
PNEC	600 mg/kg	terrestrial organisms	soil	short-term (single instance)

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

In the case of wanting to use the gloves again, clean them before taking off and air them well.

- Type of material

Nitrile

IIR: isobutene-isoprene (butyl) rubber

- Breakthrough times of the glove material

>30 minutes (permeation: level 2)

- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

Particulate filter device (EN 143).

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Physical state	solid
Colour	not determined
Odour	odourless
Melting point/freezing point	>600 °C at 1.013 hPa
Boiling point or initial boiling point and boiling range	not determined
Flammability	non-combustible
Lower and upper explosion limit	not relevant (solid)
Flash point	not applicable
Auto-ignition temperature	not determined
Decomposition temperature	not relevant
pH (value)	11,2 - 11,2 (in aqueous solution: 0,1 g/l, 20 °C)
Kinematic viscosity	not relevant

Solubility(ies)

Water solubility	<0,019 mg/l at 20 °C
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Partition coefficient

Partition coefficient n-octanol/water (log value)	not relevant (inorganic)
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Vapour pressure	not determined
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Density and/or relative density

Density	2,31 g/cm ³ at 20 °C
Relative vapour density	not relevant (solid)

9.2 Other information

Information with regard to physical hazard classes	hazard classes acc. to GHS (physical hazards): not relevant
Other safety characteristics	there is no additional information

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

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

10.5 Incompatible materials

There is no additional information.

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Classification according to GHS (1272/2008/EC, CLP)**

Acute toxicity

May be harmful in contact with skin.

- Acute toxicity estimate (ATE)

Dermal >2.000 mg/kg

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitizer.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

11.2 Information on other hazards

There is no additional information.

SECTION 12: Ecological information**12.1 Toxicity**

Shall not be classified as hazardous to the aquatic environment.

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of $\geq 0,1\%$.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations**13.1 Waste treatment methods**

Waste treatment-relevant information

Recycling/reclamation of other inorganic materials.

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1 UN number	not subject to transport regulations
14.2 UN proper shipping name	not relevant
14.3 Transport hazard class(es)	none
14.4 Packing group	not assigned
14.5 Environmental hazards	non-environmentally hazardous acc. to the dangerous goods regulations
14.6 Special precautions for user	There is no additional information.
14.7 Maritime transport in bulk according to IMO instruments	The cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations**International Maritime Dangerous Goods Code (IMDG) - Additional information**

Not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Not subject to ICAO-IATA.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****Relevant provisions of the European Union (EU)****Restrictions according to REACH, Annex XVII**

not listed

List of substances subject to authorisation (REACH, Annex XIV) / SVHC - candidate list

not listed

Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

not listed

Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

not listed

Water Framework Directive (WFD)

not listed

Regulation on persistent organic pollutants (POP)

not listed

Additional informationSubstance is listed in the following national inventories:
TSCA (United States)**15.2 Chemical Safety Assessment**

No Chemical Safety Assessment has been carried out for this substance.

SECTION 16: Other information**Key literature references and sources for data**

Globally Harmonized System of Classification and Labelling of Chemicals ("Purple book").

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H313	May be harmful in contact with skin.
H335	May cause respiratory irritation.

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.