

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006
(amended by Regulation (EU) 2020/878)

Zeochem Adsorbents / powders, beads and pellets (Zeolite, cuboidal, crystalline, synthetic, non-fibrous)

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

1.1. Product identifier

Product name	Zeochem Adsorbents / powders, beads and pellets (Zeolite, cuboidal, crystalline, synthetic, non-fibrous)
CAS-No.	1318-02-1
EC-No.	215-283-8, 930-915-9
REACH No.	01-2119429034-49-00XX
Synonyms	Z3-xx, Z4-xx, Z5-xx, Z10-xx, 4A-xx, ES1xx, HYPxx, Purmol xx, RD-xx, ZEOX xx, XX-GDG, ZA-xx, ZX-xx, ZEOflair 1000 The "xx" in the product names refer to additional alphanumeric codes representing different material grades
Product code	None.

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

Use of the Substance/Mixture	Desiccant Adsorbent Molecular sieves
-------------------------------------	--

1.3. Details of the supplier of the safety data sheet

Company/Undertaking Identification	Zeochem AG, www.zeochem.ch Joweid 5, 8630 Rütli, Schweiz Tel.: +41 44 922 93 93 E-Mail: info@zeochem.ch
---	---

1.4. Emergency telephone number	+1 800 424 9300 (CHEMTREC US)
Issuing date	03.01.2021
Version	SDS-001 rev5 (Previous versions: rev 4.1)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 Specific target organ toxicity (single exposure, inhalation), Cat. 3, H335

In accordance with Regulation (EC) No. 1272/2008 (CLP), the product does not need to be classified nor labelled.

The product is non-dangerous according to GHS.

Note: The warning symbol has been voluntarily added, please see the supplemental information below.

Additional information For the full text of the phrases mentioned in this Section, see Section 16.

2.2. Label elements



Signal Word Warning

Hazard Statements 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.
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 to an approved waste disposal plant.

Supplemental information All potential hazards are caused by the products's property to adsorb water. Dried product can dehydrate humid body parts (eyes, mucus membranes, lungs) or irritate them by the heat generated by the adsorption, the latter also applies to wetted or sweaty skin. The product saturated with water has no dangerous properties other than mechanical irritation by powder or small particles.

Product identifier Zeolite, CAS-No. 1318-02-1, EC-No. 215-283-8; 930-915-9
Clay binder, EC-No.

2.3. Other hazards No dangerous ingredients according to Regulation (EC) No. 1272/2008. The activated product generates much heat in contact with water.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Components		CLP Classification	Product identifier
Zeolite	75% - 100%		CAS-No.: 1318-02-1 EC-No.: 215-283-8; 930-915-9
Clay binder	0% - 25%		

For the full text of the phrases mentioned in this Section, see Section 16.

Hazardous impurities None known.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	No special measures required.
Skin contact	Wash with water and soap as a precaution.
Eye contact	Rinse thoroughly with plenty of water, also under the eyelids. If eye irritation persists, consult a specialist.
Ingestion	Clean mouth with water and drink afterwards plenty of water.

4.2. Most important symptoms and effects, both acute and delayed None known.

4.3. Indication of any immediate medical attention and special treatment needed None known.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media No special measures required.

Extinguishing media which must not be used for safety reasons None.

5.2. Special hazards arising from the substance or mixture No data is available on the product itself.

5.3. Advice for firefighters

Special protective equipment for firefighters Standard procedure for chemical fires.

Specific methods No special measures required.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel

No special measures required.

Advice for emergency responders

Handle in accordance with good industrial hygiene and safety practice.

6.2. Environmental precautions

No special environmental precautions required.

6.3. Methods and material for containment and cleaning up

Use mechanical handling equipment. After cleaning, flush away traces with water.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Applies to powders only: Take precautionary measures against electrostatic charging.

7.2. Conditions for safe storage, including any incompatibilities

Store in a dry place. Open aeration holes on container before removing the lids to vent pressure or break vacuum. Product shelf life is unlimited if kept dry in an airtight container. To prevent loss of product effectiveness, minimize exposure time to ambient moisture and ensure containers are tightly resealed after opening. Do not return used or unused product to original container.

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit(s)

Total dust
Permissible exposure limit: 10 mg/m³.
Alveolar dust fraction:
Permissible exposure limit: 3 mg/m³.

8.2. Exposure controls

Appropriate engineering controls

General industrial hygiene practice.

Personal protection equipment

Respiratory protection

No special protective equipment required.

Hand protection

DRY moleskin gloves.

Eye protection

Avoid contact with eyes.

Skin and body protection No special measures required.

Thermal hazards No special measures required.

Environmental exposure controls No special measures required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Powder, beads and pellets
Colour	Powder: white to cream-colored / Beads and pellets: beige, white, light brown, pink, or grey
Odour	Odorless
Melting point/ freezing point:	> 1600°C
Boiling point or initial boiling point / range:	n.a.
Flammability:	n.a.
Lower and upper explosion limit:	n.a.
Flash point:	does not flash
Auto-ignition temperature:	n.a.
Decomposition temperature:	n.a.
pH:	9-11.5 (5% in H ₂ O)
Kinematic viscosity:	n.a.
Solubility:	practically insoluble (Water)
Partition coefficient n-octanol/water (log value):	n.a.
Vapour pressure:	n.a.
Density and/or relative density:	550-850 g/L
Relative vapour density:	n.a.
Particle characteristics:	Synthetic zeolites are not classified as nanomaterials. The crystals are larger than 100 nm and do not disintegrate upon application of dispersing systems (ultrasonic waves or shear forces). For more details on the nanomaterial evaluation, please visit www.zeolites.be

9.2. Other information

Other safety characteristics No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity No information available.

10.2. Chemical stability No decomposition if used as directed.

10.3. Possibility of hazardous reactions No information available.

10.4. Conditions to avoid Not required.

10.5. Incompatible materials The activated product generates much heat in contact with water.

10.6. Hazardous decomposition products None under normal use.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	None. Zeolite (CAS 1318-02-1) LD50/oral/rat > 5000 mg/kg. LD50/dermal/rabbit > 2000 mg/kg. LC50/inhalation/rat > 15 mg/l. No observed adverse effect level (NOAEL): 250 - 300 mg/kg (rat, oral).
Skin corrosion/irritation	Slight skin irritation.
Serious eye damage/eye irritation	Slight eye irritation.
Respiratory / Skin Sensitisation	None.
Carcinogenicity	Animal testing did not show any carcinogenic effects.
Germ cell mutagenicity	Animal testing did not show any mutagenic effects.
Reproductive toxicity	Animal testing did not show any hazardous effects.
Specific target organ toxicity (single exposure)	No data available.
Specific target organ toxicity (repeated exposure)	No data available.
Aspiration hazard	Irritating to mucous membranes. May cause respiratory tract irritation.
Human experience	No data available.

SECTION 12: Ecological information

12.1. Toxicity	Zeolite (CAS 1318-02-1) EC50/48h/daphnia > 100 mg/l . LC50/96h/fish > 680 mg/l. EC50/96h/algae = 300 mg/l.
12.2. Persistence and degradability	No data available.
12.3. Bioaccumulative potential	Does not bioaccumulate. Accumulation in aquatic organisms is unlikely. Accumulation in terrestrial organisms is unlikely.
12.4. Mobility in soil	No data available.
12.5. Results of PBT and vPvB assessment	This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

12.6. Endocrine disrupting properties No information available.

12.7. Other adverse effects No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues / unused products Dispose of in accordance with local regulations.

Contaminated packaging Offer rinsed packaging material to local recycling facilities.

SECTION 14: Transport information

14.1. UN number Not applicable.

14.2. UN proper shipping name Not applicable.

14.3. Transport hazard class(es) Not applicable.

14.4. Packing group Not applicable.

14.5. Environmental hazards Not applicable.

14.6. Special precautions for user Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

UN Model Regulations

ADR/RID Not regulated.

IMDG Not regulated.

IATA Not regulated.

Further Information Not classified as dangerous in the meaning of transport regulations.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulatory Information In accordance with Regulation (EC) No. 1272/2008, the product does not need to be classified nor labelled.

15.2. Chemical safety assessment Not required.

SECTION 16: Other information

Key or legend to abbreviations and acronyms CLP: Classification according to Regulation (EC) No. 1272/2008 (GHS)
PEL: Permissible Exposure Limit

Full text of phrases referred to under sections 2 and 3 H335: May cause respiratory irritation.

Further information Information on manufacturers and REACH registration can be found in Appendix 1, V2.2

Disclaimer 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.

① Manufacturer	Zeochem LLC 1600 W. Hill St. Louisville, KY 40210 USA	Zeochem d.o.o. Zvornik Karakaj 229a 75400 Zvornik BOSNIA and HERZEGOVINA	JIANGSU ZEOCHEM TECHNOLOGY LTD. No. 1089, Jindu Road, Donghai Country Lianyungang City, Jiangsu Province, 222300 CHINA
② Substances Name, CAS no., EC no. REACH no.	③ Zeolite, cuboidal, crystalline, synthetic, non-fibrous CAS 1318-02-1 / EC 930-915-9 REACH: 01-2119429034-49-0024 ④ Clay binder (---)	③ Zeolite, cuboidal, crystalline, synthetic, non-fibrous CAS 1318-02-1 / EC 930-915-9 REACH: 01-2119429034-49-0056	③ Zeolite, cuboidal, crystalline, synthetic, non-fibrous CAS 1318-02-1 / EC 930-915-9 REACH: 01-2119429034-49-0037 ④ Clay binder (---)
⑤ Only Representative (OR) in the EU according to Art. 8 Regulation (EC) No 1907/2006	Dr. Knoell Consult GmbH, www.knoell.com Dynamostr. 19 68165 Mannheim GERMANY Tel.: +49 621 718 85 80 E-Mail: info@knoell.com	Knoell NL B.V. www.knoell.nl Agro Business Park 75-83 6708 PV Wageningen THE NETHERLANDS Tel.: +31 317 466 800 E-Mail: info@knoell.com	REACH24H CONSULTING GROUP, www.reach24h.com Suite 1E, Paramount Ct., Corrig Road, Sandymount, Dublin 18, IRELAND Tel.: +353 1 8899 951 E-Mail: info@reach24h.com

① ② ③ ④ ⑤ EN For translations, please consult page 2
 DE Die Übersetzungen finden sich auf Seite 2.
 FR Veuillez bien consulter page 2 pour les traductions
 IT Per le traduzioni, consultare la pagina 2
 ES Para las traducciones, consulte la página 2
 NL Raadpleeg pagina 2 voor vertalingen
 CZ Překlady najdete na straně 2
 TR Çeviriler 2. sayfada bulunabilir

SR Molimo pogledajte stranicu 2 za prevode
 JP 翻訳については、2ページを参照してください
 CN 有关翻译·请参阅第2页
 BG За преводите, моля, вижте страница 2
 KR 번역은 2 페이지를 참조하십시오."
 TH สำหรับการแปลโปรดปรึกษาหน้า 2"
 MY Untuk terjemahan, sila rujuk halaman 2

<p>① EN Manufacturer DE Hersteller FR Fabricant IT Produttore ES Fabricante PT Fabricante NL Fabrikant CZ Výrobce TR Üretici firma SR Proizvođač JP 製造者 CN 生产厂家 BG Производител KR 제조사 TH ผู้ผลิต MY Pengeluar</p>	<p>② EN Substances / Identifiers DE Substanzen / Identifikatoren FR Substances / identifiicateurs IT Sostanze / identificatory ES Sustancias / identificadores PT Substâncias / Identificadores NL Stoffen / identificatiemiddelen CZ Látky / identifikátory TR Maddeler / tanımlayıcılar SR Supstance / sredstva za identifikaciju JP 物質/識別子 CN 物质/标识符 BG Вещества / Идентификатори KR 물질 / 식별자 TH สาร / ตัวบ่งชี้ MY Bahan / Pengenal</p>	<p>③ EN Zeolite, cuboidal, crystalline, synthetic, non-fibrous DE Zeolith, kuboidal, kristallin, synthetisch, nicht faserig FR Zéolithe, cuboïdal, cristalline, synthétique, non fibreuse IT Zeolite, cuboidal, cristallina, sintetica, non fibrosa ES Zeolita, cuboidal, cristalina, sintética, no fibrosa PT Zeólito, cuboidal, cristalino, sintético, não fibroso NL Zeoliet, kubusvormig, kristallijn, synthetisch, niet vezelachtig CZ Zeolit, cuboidální, krystalický, syntetický, nevláknitý TR Zeolit, kübik, kristal, sentetik, lifsiz SR SR Zeolit, kuboidni, kristalni, sintetički, ne-vlaknasti JP ゼオライト、立方体、結晶性、合成、非繊維状 CN 沸石, 立方形的, 结晶·合成·非纤维状 BG Зеолит, кубичен, кристален, синтетичен, невлакнест KR 제올라이트, 입방정, 결정 성, 합성, 비 섬유질 TH ซีโอไลต์, โครงสร้างทรงลูกบาศก์, รัตนากร, สังเคราะห์, ไม่ใช่เส้นใย MY Zeolite, cuboidal, kristal, sintetik, tidak berserabut</p>
<p>④ EN Clay binder / Exempted from REACH registration based on § 8 of the Annex 5 of the Regulation (EC) No 1907/2006 DE Tonbinder / Von der REACH-Registrierung gemäß § 8 des Anhangs 5 der Verordnung (EG) Nr. 1907/2006 ausgenommen FR Minéral argilleux / Exemption de l'enregistrement REACH sur la base du § 8 de l'annexe 5 du règlement (CE) n° 1907/2006 IT Legante mine-rale naturale / Esentato dalla registrazione REACH basata sull'articolo 8 dell'allegato 5 del regolamento (CE) n. 1907/2006 ES Aglutinante de arcilla / Exento del registro REACH basado en el § 8 del Anexo 5 del Reglamento (CE) nº 1907/2006 PT Ligante de argila / Isento do registo REACH com base no § 8 do anexo 5 do Regulamento (CE) n.º 1907/2006 NL Klei bindmiddel / Vrijgesteld van de REACH-registratie op basis van § 8 van bijlage 5 van de Verordening (EG) nr. 1907/2006 CZ Pojiva jíla / Vyňaté z registrace podle nařízení REACH v souladu s § 8 přílohy 5 nařízení (ES) č. 1907/2006 TR Kil bağlayıcı / 1907/2006 Sayılı Yönetmeliğin (EC) Ek 5'inin 8. Maddesine göre REACH kaydından muaf SR Vezivo za glinu / Izuzeto iz registracije REACH na osnovu § 8 Aneksa 5 Uredbe (EZ) br. 1907/2006 JP クレーバインダー / 規制 (EC) No 1907/2006の附属書5の第8条に基づくREACH登録の免除 CN 粘土粘合剂 / 根据法规 (EC) No 1907/2006的附件5第8段免除REACH注册 BG Глинено свързващо вещество / Изключен от регистрацията по REACH въз основа на § 8 от приложение 5 към Регламент (EO) № 1907/2006 KR 점토 바인더 / 규제 (EC) No 1907/2006 부속서 5의 § 8에 근거한 REACH 등록 면제 TH ดินเหนียว / ได้รับการยกเว้นจากการลงทะเบียน REACH ตามข้อ 8 ของภาคผนวก 5 ของ Regulation (EC) No 1907/2006 MY pengikat tanah liat / Dikecualikan daripada pendaftaran REACH berdasarkan § 8 dari Lampiran 5 Peraturan (EC) No 1907/2006</p>		
<p>⑤ EN Only Representative (OR) in the EU according to Art. 8 Regulation (EC) No 1907/2006 DE Alleinvertreter (OR) nach Art. 8 Verordnung (EG) Nr. 1907/2006 FR Représentant exclusif (OR) selon art. 8 du Règlement (CE) No 1907/2006 IT Rappresentante esclusivo (OR) conformemente al Regolamento (CE) N. 1907/2006 ES Representante exclusivo (OR) en la UE de conformidad con el artículo 8 del Reglamento (CE) No 1907/2006 PT Representante único (OR) na UE, de acordo com o artigo 8.º do Regulamento (CE) No 1907/2006 NL Alleen vertegenwoordiger (OR) in de EU volgens Art. 8 Verordening (EG) nr. 1907/2006 CZ Výhradní zástupce (OR) podle článku 8 nařízení (ES) č. 1907/2006 TR 1907/2006 Sayılı Yönetmeliğin (EC) 8. Maddesine göre AB'deki Tek Temsilci (OR) SR Jedini predstavnik (OR) u EU u skladu sa čl. 8 Uredba (EZ) br. 1907/2006 JP 包括的代表 (OR) EUで 第8条規制 (EC) No 1907/2006 CN 只有代表 (OR) 在欧盟根据第8条规定 (EC) No 1907/2006 BG Изключителен представител (OR) в ЕС съгласно член 8 от Регламента EO № 1907/2006 KR 독점 대리인 (OR) EU에서 제 8 조 규정에 따라 (EC) No 1907/2006 TH ตัวแทนที่ไม่ซ้ำกัน (OR) ในสหภาพยุโรป ตามข้อบังคับของข้อ 8 (EC) No 1907/2006 MY Wakil Eksklusif (OR) di EU mengikut Perkara 8 Peraturan (EC) No 1907/2006</p>		