

Safety data sheet

based on 1907/2006/EC, Article 31

Printing date 08.06.2017

Version number 5

Revision: 08.06.2017

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

1.1 Product identifier

Trade name: *KÖSTROLITH® NaMSXP-TR,*
KÖSTROLITH® 13XP-TR,
KÖSTROLITH® LiLSXP-TR,
KÖSTROLITH® CaLSXP-TR,
KÖSTROLITH® NaYP-TR,
KÖSTROLITH® NaYP M-TR

MSDS №: MS009000

Registration number 01-2119429034-49-xxxx

1.2 Relevant identified uses of the substance or mixture and uses advised against None.

Sector of Use

SU0 Other
 SU1 Agriculture, forestry, fishery
 SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
 SU5 Manufacture of textiles, leather, fur
 SU6b Manufacture of pulp, paper and paper products
 SU8 Manufacture of bulk, large scale chemicals (including petroleum products)
 SU9 Manufacture of fine chemicals
 SU10 Formulation [mixing] of preparations and/or re-packaging (excluding alloys)
 SU11 Manufacture of rubber products
 SU12 Manufacture of plastics products, including compounding and conversion
 SU16 Manufacture of computer, electronic and optical products, electrical equipment
 SU17 General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment
 SU18 Manufacture of furniture
 SU19 Building and construction work
 SU20 Health services
 SU21 Consumer uses: Private households / general public / consumers
 SU23 Electricity, steam, gas water supply and sewage treatment

Application of the substance / the mixture

PC2 Adsorbents
 PC19 Intermediate

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Chemiewerk Bad Köstritz GmbH
 Heinrichshall 2
 D-07586 Bad Köstritz
 Germany
 Phone: +49 (0) 36605 810 (Mo-Fr: 7 am - 4 pm)
 Fax: +49 (0) 36605 2345
 Email: msds@cwk-bk.de

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 The substance is not classified according to the CLP regulation.

2.2 Label elements

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

Hazard pictograms Void

Signal word Void

Hazard statements Void

Additional information:

Do not breathe dust.
 Repeated exposure may cause skin dryness or cracking.
 Product with Workplace Exposure Limit (WEL / AGW).

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

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vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.1 Chemical characterisation: Substances

CAS No. Description

1318-02-1 zeolite (crystalline aluminosilicate)
 zeolite, cuboidal, crystalline, synthetic, non-fibrous

Additional information:

zeolite NaMSX (FAU): $\text{Na}_2\text{O} \cdot \text{Al}_2\text{O}_3 \cdot 2,35 \text{SiO}_2 \cdot n \text{H}_2\text{O}$

or

zeolite 13X (FAU): $\text{Na}_2\text{O} \cdot \text{Al}_2\text{O}_3 \cdot 2,5 \text{SiO}_2 \cdot n \text{H}_2\text{O}$

or

zeolite NaY (FAU): $\text{Na}_2\text{O} \cdot \text{Al}_2\text{O}_3 \cdot x \text{SiO}_2 \cdot n \text{H}_2\text{O}; x > 5$

Zeolite (crystalline aluminosilicate) ion-exchanged

zeolite LiLSX (FAU): $\text{Li}_2\text{O} \cdot \text{Al}_2\text{O}_3 \cdot 2 \text{SiO}_2 \cdot n \text{H}_2\text{O}$

or

zeolite CaLSX (FAU): $\text{CaO} \cdot \text{Al}_2\text{O}_3 \cdot 2 \text{SiO}_2 \cdot n \text{H}_2\text{O}$

SECTION 4: First aid measures

4.1 Description of first aid measures

General information: No special measures required.

After inhalation: Supply fresh air; consult doctor in case of complaints.

After skin contact:

Rinse with warm water.

After each cleaning use treatment creams, for very dry skin greasy ointments.

After eye contact: Rinse opened eye for several minutes under running water.

After swallowing: If symptoms persist consult doctor.

4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.

5.2 Special hazards arising from the substance or mixture No further relevant information available.

5.3 Advice for firefighters

Protective equipment: No special measures required.

Additional information Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures Wear protective clothing.

6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

Avoid formation of dust.

Pick up mechanically.

6.4 Reference to other sections

No dangerous substances are released.

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Prevent formation of dust.
 Provide suction extractors if dust is formed.
 Any unavoidable deposit of dust must be regularly removed.
 Protect against electrostatic charges.

Information about fire - and explosion protection: The product is not flammable.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: Store only in the original receptacle.

Information about storage in one common storage facility:

Store away from foodstuffs.
 Do not store together with acids.

Further information about storage conditions: None.

Storage class: 13

7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

Additional information about design of technical facilities: No further data; see item 7.

8.1 Control parameters

1318-02-1 zeolite (crystalline aluminosilicate)
 zeolite, cuboidal, crystalline, synthetic, non-fibrous

Ingredients with limit values that require monitoring at the workplace: Not required.

DNELs

Inhalative DNEL/DMEL, 3 A mg / m³ (hum) (long-local)

PNECs

PNEC aqua - freshwater 3.2 mg/L (Daphnia magna)

8.2 Exposure controls

Personal protective equipment:

General protective and hygienic measures: The usual precautionary measures are to be adhered to when handling chemicals.

Respiratory protection:

In the case of generation of fine dust use of dust filter

Filter P2

Use suitable respiratory protective device in case of insufficient ventilation.

Protection of hands:

Wear gloves for the protection against mechanical hazards according to EN 388.

Check protective gloves prior to each use for their proper condition.

Use gloves of stable material (e.g. Nitrile) - if necessary tricoted to improve the wearability.

Preventive skin protection by use of skin-protecting agents is recommended.

After each cleaning use treatment creams, for very dry skin greasy ointments.

Material of gloves

Wear gloves for the protection against mechanical hazards according to EN 388.

Butyl rubber, BR

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.2 mm

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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For the permanent contact in work areas without heightened risk of injury (e.g. Laboratory) gloves made of the following material are suitable:

Butyl rubber, BR
 Nitrile rubber, NBR

Not suitable are gloves made of the following materials:

Strong material gloves
 Leather gloves

Eye protection: Safety glasses

Body protection: Protective work clothing

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Appearance:

Form: Crystalline powder
Colour: White
Odour: Odourless
Odour threshold: Not applicable.

pH-value (50 g/l) at 20 °C: 7-11

Change in condition

Initial boiling point and boiling range: Undetermined.

Flash point: Not applicable.

Flammability (solid, gas): Product is not flammable.

Decomposition temperature: > 600 °C

Auto-ignition temperature: Not applicable.

Explosive properties: Product does not present an explosion hazard.

Explosion limits:

Lower: Not determined.
Upper: Not determined.

Vapour pressure: Not applicable.

Density at 20 °C: 2.1 g/cm³

Bulk density at 20 °C: 400 kg/m³

Relative density Not determined.

Vapour density Not applicable.

Evaporation rate Not applicable.

Solubility in / Miscibility with water: Not determined.

Partition coefficient: n-octanol/water: Not determined.

Viscosity:

Dynamic: Not applicable.
Kinematic: Not applicable.

9.2 Other information No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity No further relevant information available.

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10.2 Chemical stability

No decomposition if used and stored according to specifications.

Decomposition with acids

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.**10.3 Possibility of hazardous reactions** No dangerous reactions known.**10.4 Conditions to avoid** No further relevant information available.**10.5 Incompatible materials:** No further relevant information available.**10.6 Hazardous decomposition products:** No dangerous decomposition products known.**SECTION 11: Toxicological information****11.1 Information on toxicological effects**

1318-02-1 zeolite (crystalline aluminosilicate)
 zeolite, cuboidal, crystalline, synthetic, non-fibrous

Acute toxicity Based on available data, the classification criteria are not met.**LD/LC50 values relevant for classification:**

Oral LD50 >5110 mg/kg (rat) (OECD TG 401)
 Dermal LD50 > 2000 mg/kg (rabbit) (OECD TG 402)
 Inhalative LC50/4 h > 3350 mg/m³ (rat) (IUCLID Dataset 18-Feb-2000)

Primary irritant effect:**Skin corrosion/irritation**

Irritation of skin IS 0 (rabbit) (OECD TG 404)
 Based on available data, the classification criteria are not met.

Serious eye damage/irritation

Irritation of eyes IS 0.7-1.3 (rabbit) (OECD 405)
 Corneal opacity
 Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation

Buehler Test, guinea pig: No sensitization observed, OECD 406 (zeolite)

Oral CHO > 0.5 mg/kg bw (rat) (OECD TG 474)
 no genotoxic effects
 CHO 0.067 mg/l (Chinese Hamster Ovary) (OECD TG 473)
 cytotoxic 0.0671-0.725 mg/l without metabolic activation;
 0.313-0.4 with metabolic activation
 Mouse Lymphoma Test > 0.08 mg/ml (L5178Y) (OECD TG 476)
 no genotoxicity;
 cytotoxicity > 0.02 mg/ml (without metabolic activation);
 >0.08 with metabolic activation

Subacute to chronic toxicity:

Oral NOEL / (90 d) 5000 ppm (rat) (feeding experiment)
 Inhalative Lung effects / (11 weeks) inflammation (rat) (no follow-up period)
 Lung effects, inflammation No negative effects were determined during test for carcinogenicity and teratogenicity

Sensitisation No sensitizing effect known.**Repeated dose toxicity**

Oral NOAEL (90 d) 250-300 mg/kg (rat)
 subchronic oral repeated dose

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CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Oral AMES Test > 0.1 mg/plate (Salmonella typhimurium) (OECD TG 471)

No effect with and without metabolic activation

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity Based on available data, the classification criteria are not met.

Reproductive toxicity Based on available data, the classification criteria are not met.

STOT-single exposure

Inhalative WEL / AGW 10 mg/m³ (long-term value)

alveo WEL / AGW 3 mg/m³ (long-term value)

Based on available data, the classification criteria are not met.

STOT-repeated exposure Based on available data, the classification criteria are not met.

Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1 Toxicity

1318-02-1 zeolite (crystalline aluminosilicate)

zeolite, cuboidal, crystalline, synthetic, non-fibrous

Subsequent information refers to the deliver goods not to used goods.

Aquatic toxicity:

The product behaves under normal conditions environmental neutral.

LC50/ (96 h) > 680 mg / L (Pimephales promelas) (EPA 660/3-75/009)

EC50 / (24 h) 2808 mg/L (Daphnia magna) (OECD TG 202)

EC50 / (96 h) > 328 mg / L (scenedesmus subspicatus) (OECD TG 201)

EC50 / (16 h) 950 mg / L (pseudomonas putida) (DIN 38412/8)

12.2 Persistence and degradability

Anorganic product, is not eliminable from water by means of biological cleaning processes.

The only known route of degraation far is a slow hydrolysis, especially in acid.

12.3 Bioaccumulative potential No further relevant information available.

12.4 Mobility in soil No further relevant information available.

Ecotoxicological effects:

Remark: Based on the capability of KÖSTROLITH molecular sieves to ion exchange heavy metals may be trapped.

Additional ecological information:

General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation Subsequent information refers to the deliver goods not to used goods.

Waste disposal key:

The disposal of the product has to be carried out in accordance with the legal requirements. EWC waste codes are strictly industry-oriented, therefore waste classification has to be done by the waste producer.

European waste catalogue

06 08 99 wastes not otherwise specified

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Uncleaned packaging:**Recommendation:** Disposal must be made according to official regulations.**SECTION 14: Transport information****14.1 UN-Number****ADR, IMDG, IATA**Void
Not applicable.**ADN**

Void

14.2 UN proper shipping name**ADR**

Void

ADN

Void

IMDG, IATA

Not applicable.

14.3 Transport hazard class(es)**ADR, IMDG, IATA**

Not applicable.

Class

Void

ADN/R Class:

Void

14.4 Packing group**ADR, IMDG, IATA**Void
Not applicable.**14.5 Environmental hazards:****Marine pollutant:**

No

14.6 Special precautions for user

Not applicable.

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

Not applicable.

Transport/Additional information:

Not dangerous according to the above specifications.

UN "Model Regulation":

Void

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****Labelling according to Regulation (EC) No 1272/2008** Void**Hazard pictograms** Void**Signal word** Void**Hazard statements** Void**Directive 2012/18/EU****Named dangerous substances - ANNEX I** Substance is not listed.**15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing SDS:

Abteilung Produktsicherheit

MS-F

Contact: Kristin Gleichmann**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

* **Data compared to the previous version altered.**

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