

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name

ZC10

Synonyms

Zeolitni komponent / Zeolite compound / Zeolith Compound ZC10

<https://my.chemius.net/p/MH1TmY/en/pd/en>

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

Relevant identified uses

The mixture of raw materials for the production of detergents.

Uses advised against

No information.

1.3 Details of the supplier of the safety data sheet

Manufacturer

SILKEM, d. o. o.
Tovarniška cesta 10
2325 Kidričevo, Slovenia
+386 2 7991 200
info@silkem.si

1.4 Emergency Telephone Number

Emergency

112

Manufacturer

+386 2 7991 208 (7h - 15h)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

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

According to the regulation, the chemical is not classified as hazardous.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]**Hazard statements:**

Not applicable.

Supplemental hazard information (EU):

Not applicable.

Precautionary statements:

P261 Avoid breathing dust.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

2.3 Other hazards

PBT/vPvB

No information.

Endocrine disrupting properties

No information.

Additional information

No information.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

For mixtures see 3.2.

3.2 Mixtures

| Name | CAS EC Index Reach | % | Classification according to Regulation (EC) No 1272/2008 (CLP) | Specific Conc. Limits | Notes for substances |
|--|--|----------|--|-----------------------|----------------------|
| Zeolite | 1318-02-1 215-283-8 - 01-2119429034-49-0017 | 85-91 | / | / | / |
| 2-propenoic acid, polymer with 2,5-furandione, sodium salt | 52255-49-9 610-814-3 - | 9,5-10,5 | / | / | / |

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General notes

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Never give anything by mouth to an unconscious person. Place patient in recovery position and ensure airway patency.

Following inhalation

Ventilate the premises. Inhale fresh air. If difficulties with breathing do not stop, search for medical help.

Following skin contact

Areas of the body that have come into contact with the product must be rinsed immediately with plenty of running water. If irritation of skin persists seek medical attention.

Following eye contact

Immediately flush eyes with plenty of water while keeping eyelids apart (at least 15 minutes). Consult a physician immediately! Recommendation (based on practical experience): wash with plenty of water or with 3% boric acid solution.

Following ingestion

Rinse mouth thoroughly with water. Drink 2 glasses of water. Do not induce vomiting! In case of doubt or if feeling unwell seek medical help.

4.2 Most important symptoms and effects, both acute and delayed

Following inhalation

Coughing, sneezing, nasal discharge, labored breathing. Symptoms include: headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, unconsciousness.

Following skin contact

On contact with skin causes irritation and redness.

Following eye contact

Redness, tearing, pain. Symptoms may include: rubescence, edema, pain and lachrymation.

Following ingestion

Irritates digestive organs - mouth, gullet, digestive tract.

4.3 Indication of any immediate medical attention and special treatment needed

No information.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media**Suitable extinguishing media**

Use the usual extinguishing measures (carbon dioxide (CO₂), dry chemical, foam; water spray)

Unsuitable extinguishing media

Full water jet.

5.2 Special hazards arising from the substance or mixture**Hazardous combustion products**

No information.

5.3 Advice for firefighters**Protective actions**

In case of fire or heating do not breathe fumes/vapours.

Special protective equipment for fire-fighters

Select according to conditions and other factors.

Additional information

No information.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures**For non-emergency personnel****Protective equipment**

Use personal protective equipment (Section 8). Wear safety gloves and glasses. Thoroughly clean hands after use or contact.

Precautionary measures

No information.

Emergency procedures

No information.

For emergency responders

High risk of slipping due to leakage/spillage of product.

6.2 Environmental precautions

Use appropriate containment to dispose waste (according to current regulation-section 13.) If accidental large entry into water or ground occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up

For containment

No information.

For cleaning up

Pick up mechanically and remove it in accordance with regulation.

OTHER INFORMATION

No information.

6.4 Reference to other sections

See also sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Protective measures

Measures to prevent fire

No information.

Measures to prevent aerosol and dust generation

Prevent dusting.

Measures to protect the environment

No information.

Other measures

No information.

Advice on general occupational hygiene

Avoid contact with skin and eyes. Use personal protective equipment. Do not eat or drink while working.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep in well closed containers. Keep in a dry place. Keep container in a well ventilated place.

Packaging materials

No information.

Requirements for storage rooms and vessels

No information.

Storage class

No information.

Further information on storage conditions

No information.

7.3 Specific end use(s)

Recommendations

No information.

Industrial sector specific solutions

No information.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure limit values

| Name | mg/m ³ | ml/m ³ | Short-term value mg/m ³ | Short-term value ml/m ³ | Remark | Biological Tolerance Values |
|---------|-------------------|-------------------|------------------------------------|------------------------------------|---------------------------|-----------------------------|
| Zeolite | 10 | / | / | / | WEL long-term, inhalable | / |
| Zeolite | 4 | / | / | / | WEL long-term, respirable | / |

Information on monitoring procedures

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. BS EN 482:2021 Workplace exposure. Procedures for the determination of the concentration of chemical agents. Basic performance requirements.

DNEL/DMEL values

For product

No information.

For components

| Name | Type | Exposure route | exp. frequency | Remark | value |
|---------|--------|----------------|----------------|--------|---------------------|
| Zeolite | Worker | inhalation | long term | / | 3 mg/m ³ |
| Zeolite | Worker | dermal | long term | / | 2.5 mg/kg bw/day |

PNEC values

For product

No information.

For components

| Name | Exposure route | Remark | value |
|---------|----------------|--------|--------------|
| Zeolite | fresh water | / | 3.2 mg/L |
| Zeolite | marine water | / | 0.32 mg/L |
| Zeolite | soil | / | 600 mg/kg dw |

8.2 Exposure controls

Appropriate engineering control

Substance/mixture related measures to prevent exposure during identified uses

Avoid contact with eyes and skin.

Structural measures to prevent exposure

No information.

Organisational measures to prevent exposure

Remove all contaminated clothes immediately and wash them before reuse. Keep eyewash bottles or personal eyewash units available.

Technical measures to prevent exposure

No information.

Personal protective equipment

Eye and face protection

Safety glasses with side protection (EN 166). Eye wash bottle with clean water.

Hand protection

Use chemical resistant gloves.

Appropriate materials

No information

Skin protection

Cotton protective clothing and shoes that cover the entire foot (EN ISO 20345). Avoid contact with skin. Shower.

Respiratory protection

Wear suitable protective breathing mask (EN 136) with filter A2-P2 (EN 14387).

Thermal hazards

No information.

Environmental exposure controls

Substance/mixture related measures to prevent exposure

No information.

Instruction measures to prevent exposure

No information.

Organisational measures to prevent exposure

No information.

Technical measures to prevent exposure

No information.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state

solid

Colour

white

Odour

odourless

Important health, safety and environmental information

| | |
|--|---------------------|
| Odour threshold | No information. |
| Melting point/Freezing point | No information. |
| Boiling point or initial boiling point and boiling range | No information. |
| Flammability | No information. |
| Lower and upper explosion limit | No information. |
| Flash point | No information. |
| Auto-ignition temperature | No information. |
| Decomposition temperature | No information. |
| pH | 10 – 12 , conc. 1 % |
| Viscosity | No information. |

| | |
|---------------------------------|---|
| Solubility | Water: ≤ 0 g/l (insoluble) |
| Partition coefficient | No information. |
| Vapour pressure | No information. |
| Density and/or relative density | Bulk density: 525 – 625 kg/m ³ |
| Relative vapour density | No information. |
| Particle characteristics | No information. |

9.2 OTHER INFORMATION

| | |
|----------------------|-----------------|
| Explosive properties | No information. |
|----------------------|-----------------|

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No information.

10.2 Chemical stability

Product is stable under normal conditions of use, recommended handling and storage conditions.

10.3 Possibility of hazardous reactions

No information.

10.4 Conditions to avoid

Follow directions for use and storage. Protect from moisture and water - keep in dry place.

10.5 Incompatible materials

Follow the general rule of incompatible chemicals.

10.6 Hazardous decomposition products

Under normal use conditions no hazardous decomposition products are expected.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

(a) Acute toxicity

For product

| Exposure route | Type | Species | Time | value | Method | Remark |
|----------------|------------------|---------|------|-------------|--------|--------------|
| inhalation | LC ₅₀ | rat | 4 h | 18.3 mg/l | / | dust/aerosol |
| dermal | LD ₅₀ | rabbit | / | 2000 mg/kg | / | / |
| oral | LD ₅₀ | rat | / | 10000 mg/kg | / | / |

For components

| Name | Exposure route | Type | Species | Time | value | Method | Remark |
|---------|----------------|------------------|---------|------|--------------------|--------|--------|
| Zeolite | oral | LD ₅₀ | Dog | / | 1000 - 31600 mg/kg | / | / |
| Zeolite | oral | LD ₅₀ | rat | / | 5000 - 31600 mg/kg | / | / |

(b) Skin corrosion/irritation**For components**

| Name | Species | Time | result | Method | Remark |
|---------|---------|------|---------------|--------|--------|
| Zeolite | / | / | Non-irritant. | / | / |

(c) Serious eye damage/irritation

No information.

(d) Respiratory or skin sensitisation**For components**

| Name | Exposure route | Species | Time | result | Method | Remark |
|---------|----------------|---------|------|------------------|--------|--------|
| Zeolite | - | / | / | Non sensitising. | / | / |

(e) (Germ cell) mutagenicity**For components**

| Name | Type | Species | Time | result | Method | Remark |
|---------|------|---------|------|-----------|--------|--------|
| Zeolite | / | / | / | Negative. | / | / |

(f) Carcinogenicity**For components**

| Name | Exposure route | Type | Species | Time | value | result | Method | Remark |
|---------|----------------|------|---------|------|-------|----------|--------|--------|
| Zeolite | / | / | / | / | / | negative | / | / |

(g) Reproductive toxicity**For components**

| Name | Reproductive toxicity type | Type | Species | Time | value | result | Method | Remark |
|---------|----------------------------|------|---------|------|-------|-----------|--------|--------|
| Zeolite | - | - | / | / | / | Negative. | / | / |

Summary of evaluation of the CMR properties

No information.

(h) STOT-single exposure

No information.

(i) STOT-repeated exposure

No information.

(j) Aspiration hazard

No information.

Symptoms related to the physical, chemical and toxicological characteristics

No information.

Interactive effects

No information.

11.2 Information on other hazards**Endocrine disrupting properties**

No information.

Other information

No information.

SECTION 12: ECOLOGICAL INFORMATION**12.1 Toxicity****Acute (short-term) toxicity****For product**

| Type | Exposure time | Species | organism | Method | Remark | value |
|------------------|---------------|---------|----------|--------|--------|------------------|
| EC ₅₀ | 72 h | algae | / | / | / | 560 - 1000 mg/L |
| LC ₅₀ | 96 h | fish | / | / | / | 1800 - 3200 mg/L |

Chronic (long-term) toxicity

No information.

12.2 Persistence and degradability**Abiotic degradation, physical- and photo-chemical elimination**

No information.

Biodegradation

No information.

12.3 Bioaccumulative potential**Partition coefficient**

No information.

Bioconcentration factor (BCF)

No information.

12.4 Mobility in soil**Known or predicted distribution to environmental compartments**

No information.

Surface tension

No information.

Adsorption/Desorption

No information.

12.5 Results of PBT and vPvB assessment

No evaluation.

12.6 Endocrine disrupting properties

No information.

12.7 Other adverse effects

No information.

12.8 Additional information

For product

Avoid release to the environment. Do not allow to reach ground water, water courses or sewage system.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product / Packaging disposal**Waste chemical**

Disposal must be made according to official regulations: deliver it to authorised collector/remover/transformer of hazardous waste.

Waste codes / waste designations according to LoW

06 13 99 - wastes not otherwise specified

Packaging

Deliver completely emptied containers to approved waste disposal authorities.

Waste codes / waste designations according to LoW

15 01 02 - plastic packaging

Waste treatment-relevant information

No information.

Sewage disposal-relevant information

No information.

Other disposal recommendations

No information.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number or ID number

| ADR/RID | IMDG | IATA | ADN |
|---|---|---|---|
| Not dangerous according to transport regulations. | Not dangerous according to transport regulations. | Not dangerous according to transport regulations. | Not dangerous according to transport regulations. |

14.2 UN proper shipping name

| ADR/RID | IMDG | IATA | ADN |
|--------------------------|--------------------------|--------------------------|--------------------------|
| Not given/not applicable | Not given/not applicable | Not given/not applicable | Not given/not applicable |

14.3 Transport hazard class(es)

| ADR/RID | IMDG | IATA | ADN |
|--------------------------|--------------------------|--------------------------|--------------------------|
| Not given/not applicable | Not given/not applicable | Not given/not applicable | Not given/not applicable |

14.4 Packing group

| ADR/RID | IMDG | IATA | ADN |
|--------------------------|--------------------------|--------------------------|--------------------------|
| Not given/not applicable | Not given/not applicable | Not given/not applicable | Not given/not applicable |

14.5 Environmental hazards

| ADR/RID | IMDG | IATA | ADN |
|---------|------|------|-----|
| NO | NO | NO | NO |

14.6 Special precautions for user

| ADR/RID | IMDG | IATA | ADN |
|--|--|------|--|
| Limited quantities: Not given/not applicable | Limited quantities: Not given/not applicable | | Limited quantities: Not given/not applicable |

14.7 Maritime transport in bulk according to IMO instruments

| ADR/RID | IMDG | IATA | ADN |
|---------|--------------------------|------|-----|
| | Not given/not applicable | | |

SECTION 15: REGULATORY INFORMATION

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

- Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (including last amendment Commission Regulation (EU) 2020/878)

- Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

Information according 2004/42/EC about limitation of emissions of volatile organic compounds (VOC-guideline)

not applicable

Regulation EC 648/2004 on detergents

No information.

Special instructions

No information.

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: OTHER INFORMATION

Indication of changes

2.3 Other hazards 4.1 Description of first aid measures 9.1 Information on basic physical and chemical properties 9.2 OTHER INFORMATION 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008 12.6 Endocrine

disrupting properties 12.7 Other adverse effects 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Key literature references and sources for data

No information.

Abbreviations and acronyms

ATE - Acute Toxicity Estimate
 ADR - Agreement concerning the International Carriage of Dangerous Goods by Road
 ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 CEN - European Committee for Standardisation
 C&L - Classification and Labelling
 CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
 CAS# - Chemical Abstracts Service number
 CMR - Carcinogen, Mutagen, or Reproductive Toxicant
 CSA - Chemical Safety Assessment
 CSR - Chemical Safety Report
 DMEL - Derived Minimal Effect Level
 DNEL - Derived No Effect Level
 DPD - Dangerous Preparations Directive 1999/45/EC
 DSD - Dangerous Substances Directive 67/548/EEC
 DU - Downstream User
 EC - European Community
 ECHA - European Chemicals Agency
 EC-Number - EINECS and ELINCS Number (see also EINECS and ELINCS)
 EEA - European Economic Area (EU + Iceland, Liechtenstein and Norway)
 EEC - European Economic Community
 EINECS - European Inventory of Existing Commercial Substances
 ELINCS - European List of notified Chemical Substances
 EN - European Standard
 EQS - Environmental Quality Standard
 EU - European Union
 Euphrac - European Phrase Catalogue
 EWC - European Waste Catalogue (replaced by LoW – see below)
 GES - Generic Exposure Scenario
 GHS - Globally Harmonized System
 IATA - International Air Transport Association
 ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air
 IMDG - International Maritime Dangerous Goods
 IMSBC - International Maritime Solid Bulk Cargoes
 IT - Information Technology
 IUCLID - International Uniform Chemical Information Database
 IUPAC - International Union for Pure Applied Chemistry
 JRC - Joint Research Centre
 Kow - octanol-water partition coefficient
 LC50 - Lethal Concentration to 50 % of a test population
 LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)
 LE - Legal Entity
 LoW - List of Wastes (see <http://ec.europa.eu/environment/waste/framework/list.htm>)
 LR - Lead Registrant
 M/I - Manufacturer / Importer
 MS - Member States
 MSDS - Material Safety Data Sheet
 OC - Operational Conditions
 OECD - Organization for Economic Co-operation and Development
 OEL - Occupational Exposure Limit
 OJ - Official Journal
 OR - Only Representative
 OSHA - European Agency for Safety and Health at work
 PBT - Persistent, Bioaccumulative and Toxic substance
 PEC - Predicted Effect Concentration
 PNEC(s) - Predicted No Effect Concentration(s)
 PPE - Personal Protection Equipment

(Q)SAR - Qualitative Structure Activity Relationship

REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006

RID - Regulations concerning the International Carriage of Dangerous Goods by Rail

RIP - REACH Implementation Project

RMM - Risk Management Measure

SCBA - Self-Contained Breathing Apparatus

SDS - Safety data sheet

SIEF - Substance Information Exchange Forum

SME - Small and Medium sized Enterprises

STOT - Specific Target Organ Toxicity

(STOT) RE - Repeated Exposure

(STOT) SE - Single Exposure

SVHC - Substances of Very High Concern

UN - United Nations

vPvB - Very Persistent and Very Bioaccumulative

List of relevant H phrases

No information.