

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

1.1 Product identifier

Product name

ZC3



<https://my.chemius.net/p/1o4Fl9/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):

EUH210 Safety data sheet available on request.

Precautionary statements:

Not applicable.

2.3 Other hazards

PBT/vPvB

No information.

Endocrine disrupting properties

No information.

Additional information

The substances in the mixture are not classified as persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB).

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, cuboidal, crystalline, synthetic, non-fibrous	1318-02-1 930-915-9 - 01-2119429034-49-0017	92-96	/	/	/
Sodium sulphate	7757-82-6 231-820-9 - 01-2119519226-43-0000	2,5-3,5	/	/	/
Sodium Carboxymethylcellulose	9004-32-4 - -	1,4-1,6	/	/	/

Product description

The sodium carboxymethyl cellulose (CAS 9004-32-4) is exempted from the REACH registration (Annex V).

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

Remove patient to fresh air - move out of dangerous area. Ventilate the premises. Inhale fresh air. Seek medical help immediately.

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!

Following ingestion

In case of doubt or if feeling unwell seek medical help.

4.2 Most important symptoms and effects, both acute and delayed

Following inhalation

No information.

Following skin contact

No information.

Following eye contact

No information.

Following ingestion

No information.

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 extinguishing measures that are appropriate to local circumstances and the surrounding environment. 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

No information.

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, cuboidal, crystalline, synthetic, non-fibrous	10	/	/	/	WEL long-term, inhalable	/
Zeolite, cuboidal, crystalline, synthetic, non-fibrous	4	/	/	/	WEL long-term, respirable	/
Product	4	/	/	/	WEL long-term, respirable	/
Product	10	/	/	/	WEL long-term, inhalable	/
Product	5	/	/	/	OSHA/TWA, total dust	/
Product	15	/	/	/	OSHA/TWA, total dust	/

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, cuboidal, crystalline, synthetic, non-fibrous	Worker	inhalation	long term	/	3 mg/m ³
Zeolite, cuboidal, crystalline, synthetic, non-fibrous	Worker	dermal	long term	/	2.5 mg/kg bw/day
Sodium sulphate	Worker	inhalation	long term systemic effects	/	20 mg/m ³

Name	Type	Exposure route	exp. frequency	Remark	value
Sodium sulphate	Worker	inhalation	long term local effects	/	20 mg/m ³
Sodium sulphate	Consumer	inhalation	long term systemic effects	/	12 mg/m ³
Sodium sulphate	Consumer	inhalation	long term local effects	/	12 mg/m ³

PNEC values**For product**

No information.

For components

Name	Exposure route	Remark	value
Zeolite, cuboidal, crystalline, synthetic, non-fibrous	fresh water	/	3.2 mg/L
Zeolite, cuboidal, crystalline, synthetic, non-fibrous	marine water	/	0.32 mg/L
Zeolite, cuboidal, crystalline, synthetic, non-fibrous	soil	/	600 mg/kg dw
Sodium sulphate	fresh water	/	11.09 mg/L
Sodium sulphate	marine water	/	1.109 mg/L
Sodium sulphate	water treatment plant	/	800 mg/L
Sodium sulphate	fresh water sediment	/	40.2 mg/kg
Sodium sulphate	marine water sediment	/	4.02 mg/kg
Sodium sulphate	soil	/	1.54 mg/kg
Sodium sulphate	water, intermittent release	/	17.66 mg/L

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).

Hand protection

Protective gloves (EN 374).

Appropriate materials

No information

Skin protection

Cotton protective clothing and shoes that cover the entire foot (EN ISO 20345).

Respiratory protection

Not needed under normal use and adequate ventilation.

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

no odour

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 – 11
Viscosity	No information.
Solubility	No information.
Partition coefficient	No information.

Vapour pressure	No information.
Density and/or relative density	Bulk density: 500 – 600 kg/m ³
Relative vapour density	No information.
Particle characteristics	No information.

9.2 OTHER INFORMATION

Explosive properties	No information.
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SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No information.

10.2 Chemical stability

Product is stable under normal 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

No information.

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 components

Name	Exposure route	Type	Species	Time	value	Method	Remark
Zeolite, cuboidal, crystalline, synthetic, non-fibrous	oral	LD ₅₀	Dog	/	1000 - 31600 mg/kg	/	/
Zeolite, cuboidal, crystalline, synthetic, non-fibrous	oral	LD ₅₀	rat	/	5000 - 31600 mg/kg	/	/

Name	Exposure route	Type	Species	Time	value	Method	Remark
Sodium sulphate	oral	LD ₅₀	rat	/	2001 mg/kg	OECD 401	/
Sodium sulphate	inhalation	LC ₅₀	rat	4 h	5.01 mg/l	OECD 436	/
Sodium sulphate	oral	ATE	/	/	2001 mg/kg bw	/	/
Sodium sulphate	inhalation	ATE	/	4 h	5.01 mg/l	/	/
Sodium Carboxymethylcellulose	oral	LD ₅₀	rat	/	27000 mg/kg	/	/
Sodium Carboxymethylcellulose	inhalation	LC ₅₀	rat	4 h	> 5800 mg/m ³	/	/
Sodium Carboxymethylcellulose	dermal	LD ₅₀	rabbit	/	> 2000 mg/kg	/	/

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

Name	Species	Time	result	Method	Remark
Zeolite, cuboidal, crystalline, synthetic, non-fibrous	/	/	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, cuboidal, crystalline, synthetic, non-fibrous	-	/	/	Non sensitising.	/	/

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

Name	Type	Species	Time	result	Method	Remark
Zeolite, cuboidal, crystalline, synthetic, non-fibrous	/	/	/	Negative.	/	/

(f) Carcinogenicity**For components**

Name	Exposure route	Type	Species	Time	value	result	Method	Remark
Zeolite, cuboidal, crystalline, synthetic, non-fibrous	/	/	/	/	/	negative	/	/

(g) Reproductive toxicity**For components**

Name	Reproductive toxicity type	Type	Species	Time	value	result	Method	Remark
Zeolite, cuboidal, crystalline, synthetic, non-fibrous	-	-	/	/	/	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 components**

Name	Type	value	Exposure time	Species	organism	Method	Remark
Zeolite, cuboidal, crystalline, synthetic, non-fibrous	EC ₅₀	> 100 mg/L	48 h	daphnia	/	/	/
Zeolite, cuboidal, crystalline, synthetic, non-fibrous	LC ₅₀	> 680 mg/L	96 h	fish	/	/	/
Zeolite, cuboidal, crystalline, synthetic, non-fibrous	EC ₅₀	> 300 mg/L	96 h	algae	/	/	/
Sodium sulphate	LC ₅₀	7960 mg/L	96 h	fish	<i>Pimephales promelas</i>	/	/
Sodium sulphate	EC ₅₀	1766 mg/L	48 h	crustacea	<i>Daphnia magna</i>	/	/
Sodium sulphate	EC ₅₀	1900 mg/L	72 h	algae	<i>Nitzschia linearis</i>	/	/

Chronic (long-term) toxicity

For components

Name	Type	value	Exposure time	Species	organism	Method	Remark
Zeolite, cuboidal, crystalline, synthetic, non-fibrous	NOEC	> 86.7 mg/l	/	fish	/	/	/
Zeolite, cuboidal, crystalline, synthetic, non-fibrous	NOEC	32 mg/l	/	aquatic invertebrate	/	/	/
Zeolite, cuboidal, crystalline, synthetic, non-fibrous	NOEC	> 200 mg/l	/	sediment organisms	/	/	/
Zeolite, cuboidal, crystalline, synthetic, non-fibrous	LC ₅₀	9000 mg/kg soil dw	23 days	Terrestrial plants	/	OECD 208	seedling emergence
Zeolite, cuboidal, crystalline, synthetic, non-fibrous	EC ₅₀	9000 mg/kg soil dw	/	Terrestrial plants	/	OECD 208	seedling growth

Name	Type	value	Exposure time	Species	organism	Method	Remark
Zeolite, cuboidal, crystalline, synthetic, non-fibrous	NOEC	5000 mg/kg soil dw	/	Terrestrial plants	/	OECD 208	/
Sodium sulphate	NOEC	8000 mg/l	/	crustacea	/	/	/

12.2 Persistence and degradability

Abiotic degradation, physical- and photo-chemical elimination

No information.

Biodegradation

No information.

12.3 Bioaccumulative potential

Partition coefficient**For components**

Name	Media	value	Temperature °C	pH	Concentration	Method
Sodium sulphate	Octanol-water (log Pow)	-4.38	/	/	/	/

Bioconcentration factor (BCF)**For components**

Name	Species	organism	value	Duration	Evaluation	Method	Remark
Zeolite, cuboidal, crystalline, synthetic, non-fibrous	-	/	/	/	Does not bioaccumulate.	/	/
Sodium sulphate	BCF	/	0.5	/	/	/	/

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.

For components

Zeolite, cuboidal, crystalline, synthetic, non-fibrous

WGK: 0

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

No information.

Packaging

Deliver completely emptied containers to approved waste disposal authorities.

Waste codes / waste designations according to LoW

No information.

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

Water hazard class: 2, annex 4.

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

9.1 Information on basic physical and chemical properties 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Key literature references and sources for data

o. o., Version 1.0

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.