

SILCAPAN 400

Version number: 2.1
Replaces version of: 2019-06-17 (2)

Revision: 2020-09-30
First version: 2019-06-17

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

1.1 Product identifier

Trade name	<u>SILCAPAN 400</u>
Registration number (REACH)	Not relevant (article)
CAS number	not relevant (article)

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

Relevant identified uses	Mineral thermal insulation panels
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1.3 Details of the supplier of the safety data sheet

SILCA Service- und Vertriebsgesellschaft für Dämmstoffe mbH Elberfelder Straße 200a D-40822 Mettmann Germany	Telephone: +49 (0) 2104 9727-0 Telefax: +49 (0) 2104 9727-25 e-mail: reach@silca-online.de Website: www.silca-online.de
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e-mail (competent person) sdb@csb-online.de

Please do not use this e-mail address to ask for the latest safety data sheet. For this purpose contact SILCA Service- und Vertriebsgesellschaft für Dämmstoffe mbH.

1.4 Emergency telephone number

As above or nearest toxicological information centre.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

This mixture does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

2.2 Label elements

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

Not required.

2.3 Other hazards

There is no additional information.

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

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SECTION 3: Composition/information on ingredients

3.1 Substances

not relevant (article)

3.2 Mixtures

Not relevant (article).

Composition/information on ingredients					
Name of substance	Identifier	Classification acc. to GHS	Pictograms	Specific Conc. Limits	M-Factors
calciumsilicate	CAS No 1344-95-2 EC No 215-710-8				
portland cement	CAS No 65997-15-1 EC No 266-043-4	Skin Irrit. 2 / H315 Eye Dam. 1 / H318 STOT SE 3 / H335			
perlite	CAS No 130885-09-5 EC No 603-442-8				
quartz	CAS No 14808-60-7 EC No 238-878-4	STOT RE 2 / H373			
silicon dioxide	CAS No 7631-86-9 EC No 231-545-4				

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

In all cases of doubt, or when symptoms persist, seek medical advice.

Following inhalation

Dust: Provide fresh air.

In case of respiratory tract irritation, consult a physician.

Following skin contact

Dust: Wash with plenty of soap and water.

If skin irritation occurs: Get medical advice/attention.

Following eye contact

Dust: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

Following ingestion

Dust: Rinse mouth. Do not induce vomiting.

Get medical advice/attention if you feel unwell.

Notes for the doctor

None.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation of dust may cause respiratory irritation.

4.3 Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings

5.2 Special hazards arising from the substance or mixture

Hazardous decomposition products: Section 10.

5.3 Advice for firefighters

Non-combustible.

In case of fire and/or explosion do not breathe fumes.

Do not allow firefighting water to enter drains or water courses.

Collect contaminated firefighting water separately.

Fight fire with normal precautions from a reasonable distance.

Special protective equipment for firefighters

use suitable breathing apparatus

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Ventilate affected area.

Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing.

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

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

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

Do not breathe dust.

Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation.

Specific notes/details

Dust deposits may accumulate on all deposition surfaces in a technical room.

Measures to protect the environment

Avoid release to the environment.

Advice on general occupational hygiene

Do not eat, drink and smoke in work areas.

Wash hands after use.

Remove contaminated clothing and protective equipment before entering eating areas.

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7.2 Conditions for safe storage, including any incompatibilities

Flammability hazards

None.

Incompatible substances or mixtures

Incompatible materials: see section 10.

Protect against external exposure, such as

frost, humidity, strong shocks

Consideration of other advice

Keep away from food, drink and animal feeding stuffs.

Ventilation requirements

Provision of sufficient ventilation.

Specific designs for storage rooms or vessels

Store in a dry place.

Packaging compatibilities

Keep only in original container.

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)									
Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m ³]	STEL [ppm]	STEL [mg/m ³]	Notation	Source
EU	silica, crystalline	14808-60-7	IOELV		0.1			r	2017/2398/EU
GB	silica, amorphous		WEL		6			i	EH40/2005
GB	silica, amorphous		WEL		2.4			r	EH40/2005
GB	dust		WEL		10			i	EH40/2005
GB	dust		WEL		4			r	EH40/2005
GB	calcium silicate	1344-95-2	WEL		10			i	EH40/2005
GB	calcium silicate	1344-95-2	WEL		4			r	EH40/2005
GB	silica, crystalline	14808-60-7	WEL		0.1			r	EH40/2005
GB	portland cement	65997-15-1	WEL		10			i	EH40/2005

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Occupational exposure limit values (Workplace Exposure Limits)									
Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m ³]	STEL [ppm]	STEL [mg/m ³]	Notation	Source
GB	portland cement	65997-15-1	WEL		4			r	EH40/2005

Notation

i inhalable fraction

r respirable fraction

STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)

TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

Relevant DNELs of components of the mixture						
Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
calciumsilicate	1344-95-2	DNEL	4 mg/m ³	human, inhalatory	worker (industry)	chronic - local effects

Relevant PNECs of components of the mixture				
Name of substance	CAS No	Endpoint	Threshold level	Environmental compartment
calciumsilicate	1344-95-2	PNEC	4 mg/l	freshwater

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Dust: Use safety goggle with side protection.

Hand protection

Wear suitable gloves (Leather articles)

Respiratory protection

In case of inadequate ventilation wear 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

Appearance

Physical state	Solid
Form	Planes
Colour	Grey
Odour	Odourless
Odour threshold	These information are not available

Other safety parameters

pH (value)	>11
Melting point/freezing point	These information are not available
Initial boiling point and boiling range	These information are not available
Flash point	Not applicable
Evaporation rate	These information are not available
Flammability (solid, gas)	Non-combustible
Explosion limits of dust clouds	Not determined
Vapour pressure	These information are not available
Density	870 kg/m ³ at 20 °C
Vapour density	These information are not available
Relative density	These information are not available

Solubility(ies)

Water solubility	Insoluble
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Partition coefficient

n-octanol/water (log KOW)	These information are not available
Auto-ignition temperature	Not relevant (Solid matter)
Relative self-ignition temperature for solids	These information are not available
Decomposition temperature	>400 °C

Viscosity

Kinematic viscosity	Not relevant (Solid matter)
Dynamic viscosity	Not relevant (Solid matter)

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Explosive properties

Not explosive

Oxidising properties

Shall not be classified as oxidising

9.2 Other information

None

SECTION 10: Stability and reactivity

10.1 Reactivity

This material is not reactive under normal ambient conditions.

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

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

acids

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Classification procedure

If not otherwise specified the classification is based on:
Ingredients of the mixture (additivity formula).

Classification according to GHS (1272/2008/EC, CLP)

This mixture does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

Acute toxicity

Test data are not available for the complete mixture.

Acute toxicity of components of the mixture					
Name of substance	CAS No	Exposure route	Endpoint	Value	Species
calciumsilicate	1344-95-2	oral	LD50	>5,000 mg/kg	rat

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Acute toxicity of components of the mixture					
Name of substance	CAS No	Exposure route	Endpoint	Value	Species
calciumsilicate	1344-95-2	dermal	LD50	>5,000 mg/kg	rabbit
calciumsilicate	1344-95-2	inhalation: dust/mist	LC50	≥58.8 mg/l/4h	rat
perlite	130885-09-5	oral	LD50	12,960 mg/kg	mouse
silicon dioxide	7631-86-9	oral	LD50	>2,000 mg/kg	rat
silicon dioxide	7631-86-9	inhalation: dust/mist	LC50	>5.01 mg/l/4h	rat
silicon dioxide	7631-86-9	dermal	LD50	>2,000 mg/kg	rat

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.

Skin sensitisation

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Respiratory sensitisation

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Germ cell mutagenicity

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Carcinogenicity

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Reproductive toxicity

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Specific target organ toxicity - single exposure

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Specific target organ toxicity - repeated exposure

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

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Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

Other information

Inhalation of dust may cause respiratory irritation.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity (acute)

Test data are not available for the complete mixture.

Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
calciumsilicate	1344-95-2	LL50	>1,000 mg/l	rainbow trout (Oncorhynchus mykiss)	96 h
calciumsilicate	1344-95-2	EL50	>1,000 mg/l	algae (Desmod-esmus subspicatus)	72 h
calciumsilicate	1344-95-2	EL50	>10,000 mg/l	daphnia magna	48 h
silicon dioxide	7631-86-9	EL50	>1,000 mg/l	daphnia magna	48 h
silicon dioxide	7631-86-9	EL50	>1,000 mg/l	algae (Scenedesmus subspicatus)	72 h
silicon dioxide	7631-86-9	LL0	10,000 mg/l	zebra fish (Danio rerio)	96 h
silicon dioxide	7631-86-9	LC50	512.1 mg/l	aquatic invertebrates	48 h
silicon dioxide	7631-86-9	LC50	1,033 mg/l	fish	96 h
silicon dioxide	7631-86-9	LL50	>1,000 mg/l	rainbow trout (Oncorhynchus mykiss)	96 h
silicon dioxide	7631-86-9	EC50	>5,000 mg/l	daphnia magna	48 h
silicon dioxide	7631-86-9	EC50	>173.1 mg/l	algae (Desmod-esmus subspicatus)	72 h
silicon dioxide	7631-86-9	ErC50	>173.1 mg/l	algae (Desmod-esmus subspicatus)	72 h

Aquatic toxicity (chronic)

Test data are not available for the complete mixture.

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Aquatic toxicity (chronic) of components of the mixture

Aquatic toxicity (chronic) of components of the mixture							
Name of substance	CAS No	Endpoint	Value	Species	Method	Source	Exposure time
silicon dioxide	7631-86-9	NOEC	57 mg/l	fish	(Q)SAR	ECHA	30 d
silicon dioxide	7631-86-9	NOEC	42.11 mg/l	green algae	QSAR	ECHA	30 d
silicon dioxide	7631-86-9	NOEC	68 mg/l	daphnia magna	OECD Guideline 211	ECHA	21 d
silicon dioxide	7631-86-9	NOEC	173.2 mg/l	algae (Desmod-esmus sub-spicatus)	OECD Guideline 201	ECHA	72 h
silicon dioxide	7631-86-9	LOEC	149.2 mg/l	daphnia magna	OECD Guideline 211	ECHA	21 d

12.2 Persistence and degradability

Biodegradation

The study does not need to be conducted, the relevant substances in the mixture are inorganic.

Persistence

The study does not need to be conducted, the relevant substances in the mixture are inorganic.

12.3 Bioaccumulative potential

Test data are not available for the complete mixture.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Other adverse effects

Data are not available.

Remarks

Wassergefährdungsklasse, WGK (water hazard class): 1

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SECTION 13: Disposal considerations

13.1 Waste treatment methods

Dispose of contents/container in accordance with local/regional/national/international regulations.

Sewage disposal-relevant information

Do not empty into drains.

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.

SECTION 14: Transport information

14.1	UN number	Not subject to transport regulations
14.2	UN proper shipping name	-
14.3	Transport hazard class(es)	-
14.4	Packing group	-
14.5	Environmental hazards	-
14.6	Special precautions for user	-
14.7	Transport in bulk according to Annex II of MARPOL and the IBC Code	-

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

None of the ingredients are listed.

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

None of the ingredients are listed.

Seveso Directive

Not assigned.

Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) - Annex II

None of the ingredients are listed.

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Regulation 166/2006/EC concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

None of the ingredients are listed.

Water Framework Directive (WFD)

None of the ingredients are listed.

Regulation 98/2013/EU on the marketing and use of explosives precursors

None of the ingredients are listed.

Regulation 1005/2009/EC on substances that deplete the ozone layer (ODS)

None of the ingredients are listed.

Regulation 649/2012/EU concerning the export and import of hazardous chemicals (PIC)

None of the ingredients are listed.

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this mixture by the supplier.
Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)
1.3	Details of the supplier of the safety data sheet: SILCA Service- und Vertriebsgesellschaft für Dämmstoffe mbH Auf dem Hüls 6 40822 Mettmann Germany Telephone: ++49 (0) 2104 9727-0 Telefax: ++49 (0) 2104 9727-25	Details of the supplier of the safety data sheet: SILCA Service- und Vertriebsgesellschaft für Dämmstoffe mbH Elberfelder Straße 200a D-40822 Mettmann Germany Telephone: +49 (0) 2104 9727-0 Telefax: +49 (0) 2104 9727-25 e-mail: reach@silca-online.de Website: www.silca-online.de
8.1		Relevant DNELs of components of the mixture: change in the listing (table)
15.1		Restrictions according to REACH, Annex XVII: change in the listing (table)

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
2017/2398/EU	Directive of the European Parliament and of the Council amending Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)

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Abbr.	Descriptions of used abbreviations
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EH40/2005	EH40/2005 Workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-licence/)
EINECS	European Inventory of Existing Commercial Chemical Substances
EL50	Effective Loading 50 %: the EL50 corresponds to the loading rate required to produce a response in 50% of the test organisms
ELINCS	European List of Notified Chemical Substances
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
IMDG	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
IOELV	Indicative occupational exposure limit value
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
LL50	Lethal Loading 50 %: the LL50 corresponds to the loading rate causing 50 % lethality
LOEC	Lowest Observed Effect Concentration
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")

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Abbr.	Descriptions of used abbreviations
NLP	No-Longer Polymer
NOEC	No Observed Effect Concentration
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
STEL	Short-term exposure limit
STOT RE	Specific target organ toxicity - repeated exposure
STOT SE	Specific target organ toxicity - single exposure
SVHC	Substance of Very High Concern
TWA	Time-weighted average
vPvB	Very Persistent and very Bioaccumulative
WEL	Workplace exposure limit

Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.
Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN).

International Maritime Dangerous Goods Code (IMDG).

Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties.

Health hazards.

Environmental hazards.

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

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

Code	Text
H315	Causes skin irritation.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.

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Responsible for the safety data sheet

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Disclaimer

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