

SILCAREF

Version number: 6.0
Replaces version of: 13.01.2022 (5)

Revision: 28.08.2024
First version: 18.07.2012

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

1.1 Product identifier

Trade name	SILCAREF
Product	SILCAREF 1300-780 SILCAREF 1400-860

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

Relevant identified uses	Building material Lightweight refractory brick
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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-compliance.com
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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

Poison centre		
Country	Name	Telephone
Germany	Giftinformationszentrum - Nord Göttingen	+49 551 19240

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

Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of $\geq 0,1\%$.

Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of $\geq 0,1\%$.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (article).

3.2 Mixtures

Not relevant (article).

Product of hazardous ingredients listed below and other ingredients

mullite, quartz, aluminium oxide, Tridymite

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

Self-protection of the first aider.

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

Following inhalation

Dust: Provide fresh air.

Following skin contact

Rinse skin with water/shower.

Following eye contact

Dust: Rinse cautiously with water for several minutes.

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

Following ingestion

The product itself cannot be swallowed.

Notes for the doctor

None.

4.2 Most important symptoms and effects, both acute and delayed

This information is not available.

4.3 Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

water, foam, alcohol resistant foam, fire extinguishing powder

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the substance or mixture

Hazardous decomposition products: Section 10.

5.3 Advice for firefighters

Non-combustible.

Keep containers cool with water spray.

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

Co-ordinate firefighting measures to the fire surroundings.

Collect contaminated firefighting water separately.

Fight fire with normal precautions from a reasonable distance.

Special protective equipment for firefighters

Wear self-contained 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

Avoid contact with eyes.

Do not breathe dust.

Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation.

Removal of dust deposits.

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.

Preventive skin protection (barrier creams/ointments) is recommended.

Remove contaminated clothing and protective equipment before entering eating areas.

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

humidity, vibration, strong shocks

Consideration of other advice

Keep away from food, drink and animal feedingstuffs.

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/m³]	STEL [ppm]	STEL [mg/m³]	Notation	Source
DE	dust	-	MAK	-	4	-	-	i	DFG
DE	dust	-	AGW	-	10	-	20	Y, i	TRGS 900
DE	dust	-	AGW	-	1,25	-	2,5	Y, r	TRGS 900
DE	dust	-	MAK	-	0,3	-	2,4	r	DFG
DE	aluminium oxide	1344-28-1	MAK	-	4	-	-	dust, i	DFG
DE	aluminium oxide	1344-28-1	MAK	-	1,5	-	-	r, dust	DFG
DE	Quarzhaltiger Staub	14808-60-7	AGW	-	0,05	-	0,4	-	TRGS 559
EU	crystalline silica	15468-32-3	IOELV	-	0,1	-	-	dust, r	2017/2398/EU

Notation

dust as dust

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)

Y a risk of developmental toxicity does not need to be expected if the occupational exposure limit value and the biological limit value (BGW) are adhered to

Human health values

Relevant DNELs of components						
Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
mullite	1302-93-8	DNEL	3 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
aluminium oxide	1344-28-1	DNEL	3 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
aluminium oxide	1344-28-1	DNEL	3 mg/m³	human, inhalatory	worker (industry)	chronic - local effects

Environmental values

Relevant PNECs of components				
Name of substance	CAS No	Endpoint	Threshold level	Environmental compartment
aluminium oxide	1344-28-1	PNEC	20 mg/l	sewage treatment plant (STP)

8.2 Exposure controls**Appropriate engineering controls**

Use local and general ventilation.

Individual protection measures (personal protective equipment)**Eye/face protection**

Dust generation: Wear eye glasses with side protection according to EN 166.

Hand protection

Wear suitable gloves (Textiles, Leather).

Body protection

Protective clothing for use against solid particulates.
(EN 13832, EN 340, EN 14605).

Respiratory protection

In case of inadequate ventilation wear respiratory protection.
Particle filter device (DIN 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**

Physical state	solid (Blocks)
Colour	white - light grey
Odour	odourless
Melting point/freezing point	>1.700 °C
Boiling point or initial boiling point and boiling range	not determined
Flammability	non-combustible
Lower and upper explosion limit	not applicable (solid)

Flash point	not applicable
Auto-ignition temperature	not applicable (solid)
Decomposition temperature	not relevant
pH (value)	not applicable
Viscosity	not relevant (solid)
Solubility(ies)	
Water solubility	insoluble
Partition coefficient n-octanol/water (log value)	not relevant (inorganic)
Vapour pressure	not determined
Density and/or relative density	
Density	780 – 860 kg/m ³ at 20 °C
Relative vapour density	not relevant (solid)
Particle characteristics	no data available
9.2 Other information	
Information with regard to physical hazard classes	hazard classes acc. to GHS (physical hazards): not relevant
Other safety characteristics	there is no additional information

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.
See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

Control of dust.

10.5 Incompatible materials

There is no additional information.

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

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							
Name of substance	CAS No	Exposure route	End-point	Value	Species	Method	Source
aluminium oxide	1344-28-1	oral	LD0	>10.000 mg/kg	rat	OECD Guideline 401	ECHA

Skin corrosion/irritation

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Serious eye damage/eye irritation

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Respiratory or skin sensitisation

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.

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

Symptoms related to the physical, chemical and toxicological characteristics**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

Respirable dust which may arise increases the relative lung cancer risk in humans.

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

Does not contain an endocrine disruptor (ED) at a concentration of $\geq 0,1\%$.

SECTION 12: Ecological information**12.1 Toxicity****Aquatic toxicity (acute)**

No data available.

Aquatic toxicity (chronic)

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

Aquatic toxicity (chronic) of components

Name of sub- stance	CAS No	Endpoint	Expos- ure time	Value	Species	Method	Source
aluminium ox- ide	1344-28-1	EC50	8 d	45 mg/l	Ceriodaphnia dubia (water flea)	EPA Meth- od 1002	ECHA
aluminium ox- ide	1344-28-1	growth (Eb- Cx) 10%	3 h	1.000 mg/l	A mixed popu- lation of active sewage sludge microorgan- isms	OECD Guideline 209	ECHA

12.2 Persistence and degradability**Biodegradation**

No data available.

Persistence

No data available.

12.3 Bioaccumulative potential**n-octanol/water (log KOW)**

not relevant
(inorganic)

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of $\geq 0,1\%$.

12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of $\geq 0,1\%$.

12.7 Other adverse effects

Data are not available.

Remarks

Wassergefährdungsklasse, WGK (water hazard class): Nwg.

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 or ID number**

not assigned

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 Maritime transport in bulk according to IMO - instruments** -

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 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

None of the ingredients are listed.

Regulation on the marketing and use of explosives precursors

None of the ingredients are listed.

Regulation on drug precursors

None of the ingredients are listed.

Regulation on substances that deplete the ozone layer (ODS)

None of the ingredients are listed.

Regulation concerning the export and import of hazardous chemicals (PIC)

None of the ingredients are listed.

Regulation on persistent organic pollutants (POP)

None of the ingredients are listed.

National regulations (Germany)

Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (Ordinance on facilities for handling substances hazardous to water) (AwSV)

Wassergefährdungsklasse, WGK nwg
(water hazard class)

Technical instructions on air quality control (Germany)

Number	Group of substances	Class	Conc.	Mass flow	Mass concentration	Notation
5.2.1	total dust, including micro-dust	-	≥ 25 wt%	0,2 kg/h	20 mg/m ³	2)

Notation

- 2) even with a mass flow smaller than or equal to 0.20 kg/h, a mass concentration of 0.15 g/m³ in waste gas may not be exceeded

Storage of hazardous substances in non-stationary containers (TRGS 510) (Germany)

Storage class (LGK) 13
(non-combustible solids)

Chemikalien-Verbotsverordnung (Chemicals Prohibition Ordinance) - ChemVerbotsV

none of the ingredients are listed

Other information

Observe occupational restrictions for mothers acc. to §§ 11 and 12 MuSchG!

15.2 Chemical Safety Assessment

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

SECTION 16: Other information**Indication of changes (revised safety data sheet)**

Section	Former entry (text/value)	Actual entry (text/value)
2.1	Classification according to Regulation (EC) No 1272/2008 (CLP): This article does not meet the criteria for classification.	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.
2.3	-	Results of PBT and vPvB assessment: Does not contain a PBT-/vPvB-substance at a concentration of ≥ 0,1%.
3.1	Name of substance: ceramic materials	-
3.1	IUPAC name: ceramic materials and wares, chemicals	-
3.1	-	Constituents: change in the listing (table)
3.2	-	Mixtures: Not relevant (article).
3.2	-	Product of hazardous ingredients listed below and other ingredients: change in the listing (table)
8.1	-	Occupational exposure limit values (Workplace Ex-

Section	Former entry (text/value)	Actual entry (text/value)
		posure Limits): change in the listing (table)
8.1	-	Relevant DNELs of components: change in the listing (table)
8.1	-	Relevant PNECs of components: change in the listing (table)
8.2	Eye/face protection: Eye protect against external exposure, such as dust: Eye protection (e.g. protective goggles).	Eye/face protection: Dust generation: Wear eye glasses with side protection according to EN 166.
8.2	-	Body protection: Protective clothing for use against solid particulates. (EN 13832, EN 340, EN 14605).
8.2	Respiratory protection: In case of inadequate ventilation wear respiratory protection. Particulate filter device (EN 143).	Respiratory protection: In case of inadequate ventilation wear respiratory protection. Particle filter device (DIN EN 143).
15.1	Restrictions according to REACH, Annex XVII: Not listed.	Restrictions according to REACH, Annex XVII: None of the ingredients are listed.
15.1	-	Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS): None of the ingredients are listed.

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)
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)
AGW	Workplace exposure limit
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
DFG	Deutsche Forschungsgemeinschaft MAK-und BAT-Werte-Liste, Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Wiley-VCH, Weinheim
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 caus-

Abbr.	Descriptions of used abbreviations
	ing 50 % changes in response (e.g. on growth) during a specified time interval
ED	Endocrine disruptor
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
IOELV	Indicative occupational exposure limit value
LGK	Lagerklasse (storage class according to TRGS 510, Germany)
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)
STEL	Short-term exposure limit
SVHC	Substance of Very High Concern
TRGS	Technische Regeln für Gefahrstoffe (technical rules for hazardous substances, Germany)
TRGS 900	Arbeitsplatzgrenzwerte (TRGS 900)
TWA	Time-weighted average
vPvB	Very Persistent and very Bioaccumulative

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 2020/878/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).

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.