



Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH)

Product name: **PERI-BETONKONEN**

Print date: 21.02.2019

Version: 01

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

1.1 Product identifier

Trade name: Mortar Mix PERI-BETONKONEN

1.2 Relevant identified uses of the substance or mixture

PERI-BETONKONEN are used as sealing plugs in the building construction

1.3 Details of the supplier of the safety data sheet

Name: Frank Breul – Spezialartikel für den Bau GmbH & Co.KG

Address: In der Breit 9

DE – 36151 Burghaun-Rothenkirchen

Phone: +49 (0) 66 52 – 981 - 0

Fax: +49 (0) 66 52 – 981 - 20

E-Mail: info@breul.com

Internet: www.breul.com

1.4 Emergency telephone number

+ 49 (0) 66 52 – 981 – 0

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

The product contains naturally occurring crystalline silica which is hazardous in its respirable form. Once wetted and in the wet or final set form dust generation is not expected. Overexposure to dusts containing free crystalline silica may result in the development of a disabling, pulmonary fibrosis known as silicosis. The action of crystalline silica on the lungs results in the production of a diffuse, nodular fibrosis in which the parenchyma and the lymphatic system are involved. Casual exposure to the dust which contains respirable crystalline silica should be mentioned and controlled.

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

Serious eye damage/ eye irritation	Category 1
Skin irritation	Category 2
Specific target organ toxicity - Single exposure	Category 3 (Respiratory tract irritation)
Specific target organ toxicity - Repeated exposure	Category 2 (lungs)
Carcinogenicity	Category 1A

2.2. Label elements – according to REGULATION (EC) No 1272/2008

Hazard Pictograms



Signal Word

Danger

Hazard Statements

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H318: Causes serious eye damage.

H335: May cause respiratory irritation.

H350: May cause cancer through chronic inhalation.

H372: Causes damage to lungs through prolonged or repeated exposure

Precautionary Statements

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P260: Do not breathe dust.

P264: Wash thoroughly after handling.

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

P308: If exposed or concerned: Get medical advice

P305+351+338: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor.

P302: If on skin: Wash with plenty of water.

P332: If skin irritation occurs: Get medical advice

P262: Take off contaminated clothing and wash before reuse.

P304+340: If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center /doctor if you feel unwell.

P402: Store in dry location.

P420: Store away from incompatible materials.

SECTION 3: COMPOSITIONS/INFORMATION ON INGREDIENTS

3.1 Hazardous ingredients/impureness

Substance name	CAS- No.	EG-No.	Concentration (weight%)
Crystalline silica	14808-60-7	238-878-4	2
Portland Cement	65997-15-1 + 68475-76-3	266-043-4	25
Non-hazardous and other components below reportable levels			73



SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation	If dust from the material is inhaled, remove the affected person immediately to fresh air. If symptoms develop or persist, seek medical attention.
Skin contact	Remove heavily contaminated clothing immediately. Wash with plenty of water and pH neutral soap. Take a shower if necessary. If skin irritation or burning occurs, seek medical attention. Wash contaminated clothing before reuse.
Eye contact	Do not rub eyes. Immediately flush eyes with plenty of water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
Ingestion	Do not induce vomiting. If conscious, have the victim drink plenty of water and call a physician immediately. Never give anything by mouth to an unconscious person.
Most important symptoms/effects - acute and delayed	Severe eye irritation. Symptoms may include stinging tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Upper respiratory tract irritation. Coughing. Discomfort in the chest. Shortness of breath. Wheezing. Skin irritation.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	If you feel unwell, seek medical advice. Ensure that medical personnel are aware of the materials involved.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Dry chemical, CO₂, water spray or regular foam. Use any media suitable for the surrounding fires.

5.2 Special hazards arising from the substance or mixture

May burn but does not ignite readily (non-flammable and non combustible). In the event of fire and/or explosion do not breathe fumes. Irritation and toxic gases or fumes may be released during fire. Self-contained breathing apparatus



and full protective clothing must be worn in case of fire. Use standard fire fighting procedures and consider the hazards of other involved materials

SECTION 6: ACCIDENTIAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 Non-emergency personnel

Please wear the personal protective equipment which is mentioned in Section 8 and follow the advice for safe handling according to Section 7.

6.2.2 Emergency responders

Respiratory protection is needed in situation with high dust generation.

6.2 Environmental precautions

Avoid discharge into the sewage water system, surface water or groundwater.

6.3 Methods and material for containment and cleaning up

If possible without risk stop the discharge of the material. Minimize dust generation and accumulation. Prevent entry into waterways or sewer basement. Absorb the spilled mortar mix and reuse, if possible. Please use a vacuum cleaner or equivalent techniques to avoid dust generation. Do not use compressed air under any circumstances. If dust is formed, use personnel protective equipment and avoid inhalation and skin contact. After finishing the products recovery flush the area with water.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid dust generation and provide appropriate ventilation at places where dust is formed. Minimize dust generation and do not breathe dust. Avoid getting the material into contact with skin and eyes or prolonged exposure. Do not eat, drink or smoke when working. Wear dust respirator and protective goggles in dusty environment. Use protective gloves to avoid skin contact.

7.2 Conditions for safe storage, including any incompatibilities

Keep in a cool, well ventilated, dry place and store in original tightly closed container to avoid contamination.
Storage class 13 (non-flammable solids).

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational exposure limits

Limit value type (country of origin)	Substance name	EC-No.	CAS-No.	Occupational exposure limit value in mg/m ³	Source
AGW (DE)	Crystalline silica / Silicon dioxide	238-878-4	14808-60-7	10 (I) 3 (R)	TRGS 900
TLV (NOR)	Quartz / Silicon dioxide	238-878-4	14808-60-7	0,3 (I) 0,1 ®	Administrative Norms for Contaminants in the Workplace
AGW (DE)	Portland cement (dust – exposure: inhalation)	266-043-4	65997-15-1/ 68475-76-3	5 (I) (general dust limit value: 3 (R), 10 (I))	TRGS 900

(R): Respirable fraction; (I): inhalable fraction

8.2 Exposure controls

Some of the components/impurities of this product are hazardous in its respirable form. To comply with the occupational exposure limits, combinations of technical and individual protective measures are required.

8.2.1 Appropriate engineering controls

Good general ventilation should be applied and ventilation rates should be matched to conditions. Ventilation should be sufficient to remove or prevent dusts and fumes. If applicable use process enclosures to maintain airborne levels below exposure limits. If the Occupational exposure limits for dust particles are exceeded though the engineering measures, respiratory protection must be used. Eye wash facilities and emergency shower must be available when handling this product.

8.2.2 Personal protection

Eye / Face protection	Wear safety glasses/chemical goggles for fumes which may arise from thermal processing. Eye wash fountain is recommended.
Skin protection	Minimize contact. Wear protective clothing (waterproof, abrasion and alkali-resistant gloves and clothing) when handling dry or wet mortar. Remove contaminated clothing or boots to avoid prolonged contact with skin. Wash work cloths regularly. Clean



hands before eating or smoking to avoid contact with lips or face.

Respiratory protection	When dust or thermal processing fumes are generated and ventilation is not sufficient to effectively remove them and exposure limits are exceeded, appropriate respiratory protection must be provided. Use adequate respirator masks.
Thermal hazards	Wear appropriate thermal protective clothing when necessary.
Hygiene consideration	Do not eat, drink or smoke when using. Use industrial hygiene practices in handling this material.

8.2.3 Environmental exposure control

Air	Respect dust emission limit values according to Technical Instructions on Air.
Water	Do not discharge mortar mix into groundwater or waste water systems as an exposure may increase the pH (pH above 9 may lead to ecotoxicological effects).

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

9.1.1 Appearance

Physical state	Solid.
Colour	Grey.
Odour	Odourless.

9.1.2 Safety relevant basic data

pH	11,5 (when ready for use).
Melting point/freezing point	Not applicable.
Initial boiling point/boiling range	Not available.
Flashpoint	Not applicable as it is not a liquid.
Evaporation rate	Not applicable as it is not a liquid.
Flammability	Not applicable as it is a solid and non-flammable material.
Upper explosive limits	Not applicable as it is not gaseous.
Lower explosive limits	Not applicable as it is not gaseous.
Vapour pressure	Not applicable.
Vapour density	Not applicable.
Relative density	2.75 – 3.1
Solubility in water	Low.
Partition coefficient (n-octanol/water)	Not applicable (inorganic mixture).
Auto-ignition temperature	Not applicable.
Decomposition temperature	Not available.
Viscosity (dynamic)	Not applicable as it is not a liquid.



Viscosity (cinematic)	Not applicable as it is not a liquid.
Explosive properties	Not explosive and not pyrotechnical. No gas development or self-sustaining exothermic chemical reactions.
Oxidizing properties	Not applicable as the mortar mix has no oxidizing properties.

SECTION 10: STABILITY AND REACTIVITY

10.1 Chemical stability

Stable and non-reactive at dry conditions of storage and transport. The mortar mix is a hydraulic material. When mixed with water an intended reaction occurs and the mortar hardens to form a solid mass.

10.2 Possibility of hazardous reactions

None known.

10.3 Conditions to avoid

Avoid dispersal of dust in the air (do not clean surfaces with compressed air). Furthermore moisture during storage can lead to loss of product quality.

10.4 Incompatible materials

As the mortar mix contains cement it is alkaline and incompatible with acids, ammonium salt, aluminum and other base metals (formation of hydrogen possible). It is also incompatible with powerful oxidizers such as fluorides.

10.5 Hazardous decomposition products

At thermal decomposition temperatures, carbon monoxide, carbon dioxide, sulfur oxides and silicon oxides may occur.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

11.1.1 Acute toxicity

Acute oral toxicity	Ingestion may cause gastrointestinal irritation.
Acute inhalative toxicity (gas, vapour, dust/mist)	May damage organs through prolonged or often repeated inhalation. Occasional inhalation of dust may cause respiratory irritation.
Skin corrosion/irritation	Exposure causes skin irritation. Prolonged contact with the wet mixture may cause burns.
Eye damage/irritation	Exposure causes serious eye damage. Prolonged contact with the wet mixture may cause burns.

Symptoms related to the



physical, chemical and toxicological properties

Severe eye irritation which may include stinging, tearing, redness, swelling and blurred vision. Upper respiratory tract irritation which may include coughing, discomfort in the chest, shortness of breath and wheezing.

11.1.2 Chronic effects

Germ cell mutagenicity

No available data indicate that the product or included components in a higher concentration than 0.1% are mutagenic or genotoxic.

Carcinogenicity

The product contains a small amount of silicon dioxide which is hazardous in its respirable form. According to EG No 1272/2008 the respirable fraction of the silicon dioxide is classified as STOT RE 1. Permanent and/or intensive exposition respirable dust of crystalline silica may cause silicosis.

In 1997, IARC (The International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However in making the overall evaluation, IARC noted that "carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.)

In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore, preventing the onset of silicosis will also reduce the cancer risk..." (SCOEL SUM Doc 94-final, June 2003) According to the current state of the art, worker protection against silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits. Occupational exposure



Reproductive toxicity

to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled. No data available. (Classification criteria are not fulfilled. There is no evidence from human experience.)

**Specific target organ toxicity (STOT)
– single exposure**

Cement dust may lead to irritation of the respiratory system including throat, neck and lungs. Exposure above the Occupational limit may lead to coughing, sneezing and shortness of breath. Occasional exposure to the dust of cement may lead to impairment of respiratory functions.

**Specific target organ toxicity (STOT)
– repeated exposure**

Long term exposure to the respirable dust of cement in concentrations above the Occupational limit may lead to coughing, sneezing, shortness of breath and chronic obstructive changes in the respiratory tract.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

The product is not classified as environmentally hazardous. However, the release of large amounts of cement to water may increase the pH and thus be toxic for aquatic life under certain circumstances.

12.2 Persistence and degradability

No data available. Based on the physical properties significant environmental persistence is not expected.

12.3 Bioaccumulative potential

No data available. Based on the physical properties significant bioaccumulation is not expected.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessments

This mixture does not meet the PBT/vBvB criteria of REACH, annex XIII.

12.6 Other adverse effects

No other adverse effects are identified.

SECTION 13: DISPOSAL CONSIDERATIONS



13.1 Waste treatment methods

Collect and reclaim or dispose the dry mixture in sealed containers at licensed disposal site in accordance to local/regional/national regulations. Do not dispose in wastewater or surface water.

Where possible, recycling should be preferred to disposal.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number

Not applicable.

14.2 UN proper shipping name

Not applicable.

14.3 Transport hazard class(es)

ARD/RID, AND, IMDG, ACAO-TI/IATA-DGR – not classified. The mortar mix is not hazardous in the sense of transport regulations. Material is not explosive.

14.4 Packing group

Not applicable.

14.5 Environmental hazards

Not applicable.

14.6 Special precautions for users

Not applicable.

14.7 Transport bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not regulated.

SECTION 15: REGULATORY INFORMATION

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

Mortar Mix is a mixture and therefore does not fall under the registration requirement of EC Regulation 1907/2006 (REACH).

Portland cement is exempt from the registration requirement according to Art. 2.7 (b) and Annex V.10 of EC Regulation 1907/2006 (REACH). Marketing and use of (Portland) cement and cement-containing preparation is restricted according to Annex XVII Paragraph 47 of EC Regulation 1907/2006:



1. Cement and cement-containing mixtures shall not be used or placed on the market if they contain, when hydrated, more than 0.0002% soluble chromium(VI) of the total dry weight in the cement.
2. If reducing agents are used, then without prejudice to the application of other Community provisions on the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure before placing on the market that the packaging of cement and cement-containing mixtures is clearly readable and durably indicating when the product was packaged under what conditions and for how long it can be stored without the effect of the reducing agent decreasing and the content of soluble chromium(VI) exceeding the limit value specified in Number 1.
3. By way of derogation, Numbers 1 and 2 shall not apply to the placing on the market for, and use in, controlled closed and totally automated processes, in which cement and cement-containing mixtures are handled solely by machines and in which there is no possibility of contact with the skin. Within the scope of the "Agreement on Workers' Health Protection through the Good Handling and Use of Crystalline Silica and Products containing it", manufacturers of cement have committed themselves to implement "Best Practices" for safe handling (<http://www.nepsi.eu/good-practice-guide.aspx>).

National/requirements Water Hazard Class: WGK 1 (slightly hazardous to water)

Ordinance on Hazardous Substances (GefStoffV), Chemicals Prohibition Ordinance (ChemVerbotsV)

15.2 Chemical Safety Assessment

A chemical safety assessment has not been carried out.

SECTION 16: OTHER INFORMATION

16.1 Disclaimer

The data herein correspond to the present state of knowledge and experience and they are in conformity with valid legal enactments. They are not however comprehensive. When mixing with other products, it is to control whether further health and safety risks cannot occur. This safety data sheet does not represent a guarantee of product's properties. It is the responsibility of recipients of this SDS to ensure that the information contained therein is properly read and understood by all people who may use, handle, dispose or in any way come into contact with the product.