Knauf Aquapanel GmbH & Co. KG

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

1.1 Product identifier
Trade name: AQUAPANEL® Joint Filler - grey
Product number: KAQ_0413
Item code: 131094

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

Appropriate use:
The product is used as a joint filling agent.

Recommended restrictions on use:
People who suffer from skin problems, asthma, allergies, chronic or recurring respiratory illnesses must not be deployed in processes, which use this substance.

1.3 Details of the supplier of the safety data sheet
Knauf Aquapanel GmbH & Co. KG
Zur Helle 11
D-58638 Iserlohn
Telephone: +49-2374-50360
Fax: +49-2374-5036300
e-mail: aquapanel.info@knauf.com

E-mail-address of the competent person responsible for this Safety Data Sheet:
urban-finking.gelstoff@t-online.de

Technical contact:
Knauf Aquapanel GmbH & Co. KG, Zur Helle 11, D-58638 Iserlohn
Telephone: +49-2374-50360
Fax: +49-2374-5036300

1.4 Emergency telephone number
Giftnotruf Berlin, Advice in German and English
Telephone: +49-30-30686 790
(24 hours, Monday – Sunday)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Skin Irrit. 2: H315
Eye Dam. 1: H318
STOT SE 3: H335
2.2 **Label elements**

Hazard pictogram(s):

![Pictogram](image1)

Signal word(s): Danger

Product identifier: AQUAPANEL® Joint Filler - grey
contains Portland cement clinker, Flue dust, Portland cement, calcium hydroxide

Hazard statements:
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H335 May cause respiratory irritation.

Precautionary statements:
- P102 Keep out of reach of children.
- P261 Avoid breathing dust.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P305 + P351 + P338 + P310 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.
- P305 + P352 IF ON SKIN: Wash with plenty of water and soap.
- P332 + P313 If skin irritation occurs: Get medical advice/attention.
- P362 + P364 Take off contaminated clothing and wash it before reuse.
- P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
- P501 Dispose of contents/container to hazardous or special waste collection point.

Supplemental hazard information: Not required

**Remarks:**
- According to Article 35 paragraph 2 of Regulation (EC) No 1272/2008 packaging supplied to the general public should not have either a shape or form to mislead consumers.
- The use of the precautionary statements P102 and P501 is necessary for the labelling of the dangerous mixture supplied to the general public.

2.3 **Other hazards**
Prolonged and repetitive contact with the skin or contact with moist skin can lead to contact dermatitis.
Cement may irritate the throat and respiratory tract.
Frequent inhalation of large quantities of cement dust over a long period of time increases the risk of damage to the lungs.
The cement used in this product is low in chromate by reducing the content of sensitising chromium VI to below 2 ppm in the cement ready for use in this product. The effectiveness of the chromate reduction depends on the appropriate storage and observing the shelf life (see also subsection 7.2).
Quartz is known to be a silicosis-producing substance to human.
Avoid absolutely formation of dust during processing and treatment.
The product as a solid mixture is deemed to be hazardous to water in general.
In case of ingress of water formation of a strong alkaline solution.
The mixture does not contain any substances classified as PBT/vPvB in a concentration of 0.1% or more.
SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

**REACH registration number:**
- Flue dust, Portland cement: 01-2119486767-17-XXXX
- Calcium hydroxide: 01-2119475151-45-XXXX

**Characterisation**

This product is a mixture. It is a dry mortar based on special cements (low in chromium VI), loading material (quartz sand, hydrate of white lime, limestone flour), thickening agents (cellulose ether) and copolymers based on vinyl chloride, ethylene and vinyl esters.

<table>
<thead>
<tr>
<th>CAS No</th>
<th>EC No</th>
<th>Identification</th>
<th>% by weight</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>65997-15-1</td>
<td>266-043-4</td>
<td>Portland cement clinker</td>
<td>25 - 35</td>
<td>Eye Dam. 1; H318</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Skin Irrit. 2; H315</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Skin Sens. 1B; H317</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>STOT SE 3; H335</td>
</tr>
<tr>
<td>68475-76-3</td>
<td>270-659-9</td>
<td>flue dust, Portland cement</td>
<td>&gt; 0.02 - &lt; 1.5</td>
<td>Eye Dam. 1; H318</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Skin Irrit. 2; H315</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Skin Sens. 1; H317</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>STOT SE 3; H335</td>
</tr>
<tr>
<td>1305-62-0</td>
<td>215-137-3</td>
<td>calcium hydroxide</td>
<td>5 - &lt; 10</td>
<td>Skin Irrit. 2; H315</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Eye Dam. 1; H318</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>STOT SE 3; H335</td>
</tr>
</tbody>
</table>

See subsection 2.2 for further details. Full text of the hazard statements see Section 16.

### Substances for which Union workplace exposure limits have been assigned (see also Section 8.)

The product contains quartz in concentrations > 30 - < 40%.

The content of the respirable dust fraction is less than 1%.

### Additional information

The hazardous properties of the product indicated by the classification occur in case of contact with moisture or water (alkaline reaction of Portland cement and calcium hydroxide). The type of the Portland cement used in this product is reduced in chromate. For cements treated with a chromium VI reducing agent, the effectiveness of the reducing agent diminishes with time. Therefore, packaging of cement-containing mixtures contain information on the period of time (shelf-life) for which the manufacturer has established that the reducing agent will continue to maintain the level of soluble chromium VI below the imposed limit of 0.0002%. In case of improper storage (ingress of moisture) or exceeding the shelf life the reducing agent can lose its effectiveness prematurely and a sensitising effect of the cement on the skin cannot be ruled out.

SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General information

Take off contaminated clothing immediately and wash before reuse.

In the immediate working surroundings emergency eye wash must be installed. Label its location conspicuously.

#### In case of inhalation

Take affected person to fresh air. Dust in throat and nasal passages must be removed immediately.

By continuous complaints seek medical advice.

#### In case of contact with skin

In case of contact with skin wash off immediately with plenty of water.

By continuous complaints seek medical advice.

#### In case of contact with eyes

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Remove contact lenses, if present and easy to do.

Do not rub eyes, cornea damage is possible by mechanical stress.
(continued from 4.1 Description of first aid measures)

In case of ingestion
If swallowed, rinse mouth with water (only if the person is conscious).
Let water be swallowed in little sips (dilution effect). Do not induce vomiting. Take medical treatment immediately.

4.2 Most important symptoms and effects, both acute and delayed
After inhalation: coughing, sore throat.
After ingestion: abdominal pains.
After contact with skin: redness, dry skin.
After contact with eyes: serious eye damage.

4.3 Indication of any immediate medical attention and special treatment needed
Treat symptomatically. No information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media
Product itself is non-combustible.
Fire extinguishing method of surrounding areas must be discussed.

Unsuitable extinguishing media
Product itself is non-combustible.
Fire extinguishing method of surrounding areas must be discussed.

5.2 Special hazards arising from the substance or mixture
In the event of fire the following can be released: hydrogen chloride.

5.3 Advice for firefighters
Use self-contained breathing apparatus in dust-laden atmosphere.
Collect contaminated firefighting water separately (strong alkaline solution) and dispose of in accordance with the local regulations.
Classification of fire reaction rating as per EN 13501-1: Euro class A1 (Non-combustible).

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
For non-emergency personnel
Avoid dust formation. Use personal protective clothing.
Keep away from unprotected people.

For emergency responders
For suitable fabric for personal protective clothing see Section 8.

6.2 Environmental precautions
Do not discharge into the drains, the aquatic environment and soil.

6.3 Methods and material for containment and cleaning up
Keep away from water. Pick up mechanically. Avoid raising dust.
Do not use compressed air for cleaning surfaces or clothing.
Approved industrial vacuum cleaners or central suction systems should be used for removal of dry product.
Clean up wet product and place in a container.
Allow material to dry and solidify before disposal.
Dispose of absorbed material in accordance with the regulations.
After contact with water product is setting up.
Clear contaminated areas thoroughly.

6.4 Reference to other sections
For personal protective equipment see also Section 8.
For disposal considerations see also Section 13.
SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling
Avoid formation of dust. Provide good ventilation of working area (local exhaust ventilation if necessary).
Keep sampling device dry.
Always close containers tightly after the removal of product.
Dust deposits that cannot be avoided must be taken up regularly.
For bagged filler used in open-ended mixers, first add the water and then carefully add the filler.
Keep the height of fall low. Start stirring slowly.
Do not compress empty bags, except when contained in another clean bag.
When working, do not kneel in fresh filler.
Use only alkali-proof equipment (alkaline reaction after water supply).
The hazardous properties of the product indicated by the classification occur in case of addition of water.
Avoid contact with skin and eyes.
Comply with the minimum standards in accordance with TRGS 500¹.
Moreover, comply with the protective measures in accordance with TRGS 401¹.
In case of release of mineral dust, comply with the protective measures in accordance with TRGS 559¹.

Inhalation:
In designing the work process the model solutions of the Control Guidance Sheets 100¹ and 110¹ must be taken into consideration in case of possible release of dust and only small amounts of product (range of grams).
In designing the work process the model solutions of the Control Guidance Sheets 200¹, 208³ and 240¹ must be additionally taken into consideration in case of possible release of dust and medium amounts of product (range of kilograms).
In designing the work process the model solutions of the Control Guidance Sheet 300¹ (closed system) must be taken into consideration in case of possible release of dust and large amounts of product (range of tons).
The consideration of the Good Practice Guide on Workers Health Protection through the Good Handling and Use of Crystalline Silica and Products Containing it¹ is recommended.

Skin contact:
In designing the work process the model solutions of the Control Guidance Sheet 120¹ must be taken into consideration in case of small-area skin contact (e.g. splashes) and short-term effect (duration of skin contact less than 15 minutes per shift). In case of long-term effect (duration of skin contact more than 15 minutes per shift), the model solutions of the Control Guidance Sheet 250¹ must be additionally taken into consideration.
In designing the work process the model solutions of the Control Guidance Sheets 120¹ and 250¹ must be taken into consideration in case of large-area skin contact (wetting of the skin) and regardless on the duration of skin contact.

Advice on general occupational hygiene
Do not inhale dust. Avoid contact with eyes and skin. At work do not eat, drink, smoke or take drugs.
Take off contaminated clothing immediately and wash before reuse. Store work clothing separately.
After worktime and before breaks the affected skin areas must be thoroughly cleaned.
After work protect skin by using skin protective cream. Set out skin protection guidelines.
In the immediate working surroundings emergency eye wash must be installed. Label its location conspicuously.

7.2 Conditions for safe storage, including any incompatibilities

Advice on protection against fire and explosion
No special measures necessary.

Requirements for storage rooms and vessels
Keep in the original container and tightly closed.
Store container in a well-ventilated place.
Do not store in aluminium containers. Risk of corrosion when moisture is present.
For cements treated with a chromium VI reducing agent, the effectiveness of the reducing agent diminishes with time.
Therefore, packaging of cement-containing mixtures contain information on the period of time (shelf-life) for which the manufacturer has established that the reducing agent will continue to maintain the level of soluble chromium VI below the imposed limit of 0.0002%. They also indicate the appropriate storage conditions for maintaining the effectiveness of the reducing agent.
In case of improper storage (ingress of moisture) or exceeding the shelf life the reducing agent can lose its effectiveness prematurely and a sensitising effect of the cement on the skin cannot be ruled out.

Advice on storage compatibility
Do not store together with acids.
The information about joint storage given in Table 2 of TRGS 510¹ must be observed.
Further information on storage conditions
Store in a dry place. Protect from wetness.
Maximum period of storage (time): unopened storage life approx. 12 months.

Storage class (for Germany only)
LGK 13 (non-combustible solids) in accordance with TRGS 510.

### 7.3 Specific end use(s)
The product is only intended for the uses mentioned under subsection 1.2.
Observe technical data sheet.
In accordance with GISBAU (Information system of the German employers’ liability insurance association for building and construction industry):
GISCODE: ZP 1 (products containing cement, low in chromium)

### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

<table>
<thead>
<tr>
<th>CAS number</th>
<th>Identification</th>
<th>Limit values</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>65997-15-1</td>
<td>Portland cement</td>
<td>5 mg/m³ inhalable aerosol</td>
<td>National limit values – eight hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 mg/m³ respirable fraction</td>
<td>Austria</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mg/m³ inhalable dust</td>
<td>Belgium</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 mg/m³ respirable fraction</td>
<td>Finland</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 mg/m³ inhalable</td>
<td>Finland</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 mg/m³ respirable fraction</td>
<td>Hungary</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6 mg/m³</td>
<td>Ireland</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 mg/m³ respirable fraction</td>
<td>Latvia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 mg/m³ inhalable aerosol</td>
<td>Spain</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 mg/m³ respirable aerosol</td>
<td>United Kingdom</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 mg/m³ inhalable aerosol</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>1305-62-0</td>
<td>calcium hydroxide</td>
<td>1 mg/m³ (respirable fraction)</td>
<td>EU-exposure limit value in accordance with Directive (EU) 2017/164</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 mg/m³ (respirable fraction)</td>
<td>8 hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 mg/m³ inhalable fraction</td>
<td>Short-term</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 mg/m³ inhalable fraction</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mg/m³ inhalable fraction</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mg/m³ inhalable fraction</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mg/m³ inhalable fraction</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 mg/m³ respirable fraction</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 mg/m³ inhalable aerosol</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 mg/m³ inhalable fraction</td>
<td></td>
</tr>
</tbody>
</table>
(continued from 8.1 Control parameters)

<table>
<thead>
<tr>
<th>14808-60-7</th>
<th>quartz</th>
<th>National limit values – eight hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.15 mg/m³ respirable aerosol</td>
<td>Austria</td>
</tr>
<tr>
<td></td>
<td>0.1 mg/m³</td>
<td>Belgium</td>
</tr>
<tr>
<td></td>
<td>0.3 mg/m³ respirable aerosol</td>
<td>Denmark</td>
</tr>
<tr>
<td></td>
<td>0.1 mg/m³</td>
<td>Denmark</td>
</tr>
<tr>
<td></td>
<td>0.05 mg/m³ respirable fraction</td>
<td>Estonia</td>
</tr>
<tr>
<td></td>
<td>0.1 mg/m³ respirable aerosol</td>
<td>Finland</td>
</tr>
<tr>
<td></td>
<td>0.1 mg/m³ respirable aerosol</td>
<td>France</td>
</tr>
<tr>
<td></td>
<td>0.1 mg/m³ respirable aerosol</td>
<td>Hungary</td>
</tr>
<tr>
<td></td>
<td>0.05 mg/m³ respirable fraction</td>
<td>Ireland</td>
</tr>
<tr>
<td></td>
<td>0.1 mg/m³ respirable aerosol</td>
<td>Lithuania</td>
</tr>
<tr>
<td></td>
<td>0.2 mg/m³ respirable aerosol</td>
<td>Slovakia</td>
</tr>
<tr>
<td></td>
<td>0.075 mg/m³ respirable dust</td>
<td>Spain</td>
</tr>
<tr>
<td></td>
<td>0.6 mg/m³ inhalable aerosol</td>
<td>Sweden</td>
</tr>
<tr>
<td></td>
<td>0.075 mg/m³ respirable dust</td>
<td>The Netherlands</td>
</tr>
<tr>
<td></td>
<td>0.1 mg/m³ respirable fraction</td>
<td>From 17.01.2020*:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EU-exposure limit value in accordance with Directive (EU) 2017/2398</td>
</tr>
<tr>
<td></td>
<td>0.1 mg/m³ respirable fraction</td>
<td>8 hours</td>
</tr>
</tbody>
</table>

* Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by 17 January 2020 at the latest.

Additional limit values for calcium dihydroxide in accordance with the registration dossier:

- **DNEL (Derived No-Effect Level)**
  - worker, short-term exposition: inhalation, local effect: 4 mg/m³
  - worker, long-term exposition: inhalation, local effect: 1 mg/m³
  - general population, short-term exposition: inhalation, local effect: 4 mg/m³
  - general population, long-term exposition: inhalation, local effect: 1 mg/m³

- **PNEC (Predicted No-Effect Concentration)**
  - aquatic, fresh water: 0.49 mg/l
  - aquatic, marine water: 0.32 mg/l
  - aquatic, intermittent release: 0.49 mg/l
  - aquatic, sewage treatment plant: 3 mg/l
  - soil environment: 1080 mg/kg(dw)

The methods for measuring chemical agents in workplace atmosphere must meet the general requirements of EN 481, EN 482 and EN 689.

**8.2 Exposure controls**

**Appropriate engineering controls**

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See also subsection 7.1.

In case of dust formation exhaust ventilation at the object (initiation point) is necessary.

In case of release of dust, additionally comply with the protective measures in accordance with TRGS 5591.

The effectiveness of suitable protective measures must be controlled.

Suitable assessment methods are described in the German TRGS 4021.

**Individual protection measures, such as personal protective equipment**

Personal protective equipment needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. In the cases of special applications, it is recommended to check the chemical resistance with the manufacturer/supplier of the personal protective equipment.
Eye/face protection

Tightly fitting safety glasses in accordance with EN 166 (in case of dust formation and splashing).

Hand protection

Cotton gloves (nitrile-coated) marked with a CE sign. Wear cotton undermitten if possible. Suitable gloves for the handling of products containing cement, low in chromium (GISCODE: ZP 1) in accordance with GISBAU (Information system of the German professional associations for building and construction industry):
- Ansell: Flexitril L27, Fleximax 27 or 35, Hylite, Nitrotough N210, Sol-Knit
- KCL: Sahara, Gobi, Nitex
- MAPA: Stansolv AK 22, Duo-Mix 405, Enduro 328, Titanlite 397, Titansuperlite
- UVEX: uvex Profi Ergo XG 20, uvex phynomic pro

The protective gloves to be used must comply with the specifications of the standard EN 374.

Body protection

Closed work clothing.

Respiratory protection

In dust-laden atmosphere: breathing apparatus with particle filter P2 or filtering half mask to protect against particles FFP1 – FFP3 in accordance with EN 149.

Maximum use concentration for substances with occupational exposure limit values (OELV): P1-filter up to max. 4 x OELV; P2-filter up to max. 10 x OELV; P3-filter up to max. 30 x OELV.

These values are only valid for Germany in accordance with the German DGUV Regeln 112-190\(^2\). The limitations in wearing time according to the DGUV Regeln 112-190\(^2\) (rule of the German employers’ liability insurance association) for the use of respirators have to be observed.

Thermal hazards

Not relevant.

Environmental exposure controls

See Section 6.
SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- **Physical state:** powder
- **Colour:** grey
- **Odour:** slight
- **Odour threshold:** no data available
- **pH (as supplied) (20°C):** not determinable
- **pH (of an aqueous solution) (23°C):** 11 – 13
- **Melting point/freezing point (°C):** not determined
- **Boiling point and boiling range (°C):** not relevant
- **Flash point (°C), closed cup:** not relevant
- **Evaporation rate:** not relevant
- **Flammability (solid, gas):** not relevant
- **Upper flammability or explosive limit:** not relevant
- **Lower flammability or explosive limit:** not relevant
- **Vapour pressure (20°C) (mbar):** not relevant
- **Vapour density (20°C):** not relevant
- **Relative density:** no data available
- **Bulk density (g/cm³):** 0.9 – 1.0
- **Solubility in water (at 20°C):** 1650 mg/l (calcium hydroxide)
- **Soluble in:** not relevant
- **Partition coefficient: n-octanol/water:** not relevant
- **Auto-ignition temperature (°C):** not relevant
- **Decomposition temperature (°C):** 580 (decomposition of calcium hydroxide)
- **Viscosity:** not relevant
- **Explosive properties:** not explosive
- **Oxidising properties:** not relevant

9.2 Other information

None.

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available for the product.

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions

Reaction of limestone flour with acids, with violent evolution of heat and liberation of carbon dioxide. Increase in pressure and risk of bursting in closed containers.

Wet product reacts with aluminium under the formation of hydrogen.

Reaction of moist cement with acids, ammonium salts, aluminium and other base metals.

Cement is soluble in hydrofluoric acid to form toxic and corrosive silicon tetrafluoride gas.

10.4 Conditions to avoid

Avoid influence of moisture before processing (alkaline reaction with water). Decomposition of calcium hydroxide into calcium oxide and water at temperatures above 580°C.

10.5 Incompatible materials

Calcium hydroxide contained in this product reacts with acids under the formation of calcium salts.

Reaction of limestone flour with acids, with violent evolution of heat and liberation of carbon dioxide. Increase in pressure and risk of bursting in closed containers.

Wet product reacts with aluminium under the formation of hydrogen.

Reaction of moist cement with acids, ammonium salts, aluminium and other base metals.

Cement is soluble in hydrofluoric acid to form toxic and corrosive silicon tetrafluoride gas.

10.6 Hazardous decomposition products

No hazardous decomposition products known. For hazardous combustion products see subsection 5.2.
SECTION 11: Toxicological information

11.1 Information on toxicological effects
The mixture has not been tested. The toxicological data mentioned are derived from an analogous product.

**Acute toxicity**

- **LD50 rat, oral** (mg/kg) 7340 (calcium hydroxide) (RTECS)
- **LD50 rabbit, dermal** (mg/kg) > 2500 (calcium hydroxide) (OECD Test Guideline 402) (information of the manufacturer)
- **LC50 rat, inhalation** (mg/l/4h) No data available.

**Skin corrosion/irritation**
No data available.

**Serious eye damage/irritation**

- Irritant effect on eyes (rabbit) Severe eye irritation (Standard Draize test)

**Respiratory or skin sensitisation**
The product contains cement reduced in chromate with a content of soluble chromium less than 2 ppm related to the cement portion. There is only a very little risk to fall ill with bricklayer’s itch. Yet a sensitisation by skin contact cannot be ruled out for persons who are very sensitive.

**Germ cell mutagenicity**
The mixture does not contain substances classified as germ cell mutagens.

**Carcinogenicity**
The mixture does not contain substances classified as carcinogenic.

**Reproductive toxicity**
The mixture does not contain substances classified as toxic for the reproduction.

**Specific target organ toxicity (STOT)-single exposure**
May cause respiratory irritation.

**Specific target organ toxicity (STOT)-repeated exposure**
The mixture does not contain substances classified as a specific target organ toxicant after repeated exposure.

**Aspiration hazard**
The mixture does not contain aspiration toxicants.

**Symptoms related to the physical, chemical and toxicological characteristics**
- After inhalation: coughing, sore throat.
- After ingestion: abdominal pains.
- After contact with skin: redness, dry skin.
- After contact with eyes: serious eye damage.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**
The product contains cement reduced in chromate with a content of soluble chromium less than 2 ppm related to the cement portion. There is only a very little risk to fall ill with bricklayer’s itch. Yet a sensitisation by skin contact cannot be ruled out for persons who are very sensitive. Prolonged and repetitive contact with the skin or contact with moist skin can lead to contact dermatitis. Frequent inhalation of large quantities of cement dust over a long period of time increases the risk of damage to the lungs. Quartz is known to be a silicosis-producing substance to human.
SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:
- 96 h LC50 (fish): 50.6 mg/l (Oncorhynchus mykiss: rainbow trout) (OECD Test Guideline 203)
- 48 h EC50 (daphnia): 49.1 mg/l (Daphnia magna) (OECD Test Guideline 202)
- 72 h EC50 (algae): 184.57 mg/l (Pseudokirchneriella subcapitata) (OECD Test Guideline 201)

Behaviour in sewage works:
Due to the alkaline character of the product, usually, it has to be neutralised before contaminated effluents are introduced into the waste water treatment system.

12.2 Persistence and degradability

- Chemical oxygen demand (COD): Not relevant.
- Biochemical oxygen demand (BOD5): Not relevant.
- AOX-hint: Not to apply.

12.3 Bioaccumulative potential
The product has not been tested.

12.4 Mobility in soil
The product has not been tested.

12.5 Results of PBT and vPvB assessment
The mixture does not contain any substances classified as PBT/vPvB in a concentration of 0.1% or more.

12.6 Other adverse effects

- Ozone depletion potential: Not relevant
- Photochemical ozone creation potential: Not relevant
- Global warming potential: Not relevant

The product as a solid mixture is deemed to be hazardous to water in general. In case of ingress of water formation of a strong alkaline solution. Increase of pH-value possible after release of large amounts into the aquatic environment.

Contains according to the formulation following compounds of directives 2006/11/EC and 80/68/EEC: None.
SECTION 13: Disposal considerations

13.1 Waste treatment methods
Waste disposal according to official state regulations. Sewage disposal must be avoided. Consult the local waste disposal expert about waste disposal.

Disposal operations/recovery operations according to Directive 2008/98/EC
Disposal operations: D 9 Physico-chemical treatment
Recovery operations: R 5 Recycling/reclamation of other inorganic materials

Properties of waste which render it hazardous in accordance with Annex III of Directive 2008/98/EC
HP 4: Irritant
HP 5: Specific Target Organ Toxicity (STOT)

Product/unused product
Waste disposal corresponding to European Waste Catalogue. Wastes must be classified with respect to their origin and depending on different processing steps. The waste codes mentioned as follows are only constituted as our recommendations. Referring to the particular case they should be completed or revised.

Dried-out product remainders:
EC waste code: 17 01 01
Waste notation: Concrete

Unused product:
EC waste code: 17 01 06
Waste notation: Mixtures of, or separate fractions of concrete, bricks, tiles and ceramics containing hazardous substances

Contaminated packaging
Recommendation: Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.
Recommended cleansing agent: Immediately clean with water.
Hardened product can only be removed mechanically.

Packaging that cannot be cleaned:
EC waste code: 15 01 10
Waste notation: Packaging containing residues of or contaminated by hazardous substances

SECTION 14: Transport information

14.1 UN number
No dangerous good in accordance with the UN Model Regulations (ADR/RID/ADN/IMDG/ICAO/IATA).

14.2 UN proper shipping name
Not relevant.

14.3 Transport hazard class(es)
Not relevant.

14.4 Packing group
Not relevant.

14.5 Environmental hazards
Not relevant.

14.6 Special precautions for user
Not relevant.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code
Not relevant.
SECTION 15: Regulatory information

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

Information regarding relevant Union safety, health and environmental provisions

Regulation (EC) No 1907/2006: Annex XVII, point 47 (Chromium VI compounds)

Observe Directive 2003/53/EC.

Observe employment restrictions under the law for the protection of young people at work (94/33/EC).

Observe Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Information regarding national laws/national measures that may be relevant (for Germany only)

Restriction of occupation: Youth Employment Protection Act must be observed

Major-accident Ordinance: Not relevant

Fire and explosion hazards: Not relevant

Regulation on clean air (TA Luft): Number 5.2.1

Fire and explosion hazards: Not relevant

Water hazard class: The product as a solid mixture is deemed to be hazardous to water in general in accordance with § 3(2) point 8 AwSV. The German Ordinance on facilities for handling substances that are hazardous to water (AwSV) has to be observed.

German Ordinance on Hazardous Substances (in accordance with EC-Directive 98/24/EC): Articles 6, 7, 8, 9, 14, Annex I No 2 must be observed.


Obligatory prophylaxis: The employer shall arrange occupational medical prophylaxis for workers conducting activities with exposure to inhalable dust, if the occupational exposure limit value is exceeded. Annex, Part 1 (2):

Prophylaxis offer: For activities involving inhalable dust occupational medical prevention has to be offered.

Technical Rules for Hazardous Substances: TRGS 400, 401, 402, 500, 510, 555, 559, 600, 900

Rules of the employers’ liability insurance association: DGUV Regel 112-189, 112-190, 112-192, 112-195

Information of the employers’ liability insurance association: DGUV Information 250-403

Classification in accordance with the easy-to-use workplace control scheme for hazardous substances of the Federal Institute for Occupational Safety and Health, version 2.2, 2014:

inhalation: hazard group B

skin contact: hazard group HB

(in case of release of mineral dust, the protective measures in accordance with TRGS 559 should be applied preferably)

In accordance with Article 16e of the German Chemicals Act there is an obligation to notify the product at the Federal Institute of Risk Assessment (BfR).

Number of the product in the Poison Information Database: 5712630

15.2 Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

calcium hydroxide
SECTION 16: Other information

Keeping (restrictions) Article 8 paragraphs 5 and 6 of the German Ordinance on Hazardous Substances has to be observed. (only for Germany)

Supply to industry consumer

Full text of the hazard statements referred to under subsections 2.1 and 3.2 of the Safety Data Sheet
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.

Key to abbreviations and acronyms used in the safety data sheet
ADN: Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
ADR: Accord européen relatif au transport international des marchandises dangereuses par route
AOX: adsorbable organically bound halogens
AwSV: Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (Ordinance on facilities for handling substances that are hazardous to water)
DNEL: Derived No-Effect Level
ICAO/IATA: International Civil Aviation Organisation/International Air Transport Association-Dangerous Goods Regulations
IMDG-Code: International Maritime Dangerous Goods-Code
IUCLID: International Uniform Chemical Information Database
LGK: Lagerklasse (storage class)
NEPSI: Noyau Européen pour la Silice – European Network for Silica
OECD: Organisation for Economic Co-operation and Development
PBT: persistent, bioaccumulative and toxic
PNEC: Predicted No-Effect Concentration
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer
RTECS: Registry of Toxic Effects of Chemical Substances
TRGS: Technische Regeln für Gefahrstoffe (Technical Rules for Hazardous Substances)
vPvB: very persistent and very bioaccumulative

Literature references and sources for data
1 http://www.baua.de
2 http://www.arbeitssicherheit.de
3 http://www.umweltbundesamt.de
4 http://www.nepsu.eu
5 http://www.wingis-online.de
6 http://www.baua.de/emkg

Method used for the classification of the mixture
The classification was undertaken in accordance with the classification criteria of Annex I of Regulation (EC) No 1272/2008.

Changes which have been made to the previous version of the safety data sheet
Revised sections: 2.2, 2.3, 3.2, 7.2, 8.1, 8.2, 11.1, 16

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

Compiled by: Dr. Michael Urban
Fachberatung Gefahrstoff Gefahrgut
Vogelbeerweg 3 D-26180 Rastede-Ipwege / Germany
Tel.: +49-4402-695620 Fax: +49-4402-695621