

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH)
in conjunction with (EU) Nr. 453/2010

PAGEL Ready-to-use mortar: grout and repair mortar

Print date: 19.05.2016

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1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Ready-to-use mortar: grout and repair mortar

Further trade names:

Cement-containing mortar products can contain:

CEM I: Portland cement / Sulfadur cement

CEM III: Blast furnace cement / Andotherm cement

all strength classes (32.5, 42.5 and 52.5)

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

The building material is a hydraulically setting dry mortar. The product is mixed by simply adding water and contains no further additives. The related activities include the handling of dry (powder) materials as well as of materials where water has been added (suspensions).

Identified uses for professionals including process categories and descriptors according to ECHA Guidance R.12 (ECHA-2010-G-05) are listed in Section 16.

1.3 Details of the supplier of the safety data sheet

| | |
|--------------------------|--|
| Company name: | PAGEL Spezial-Beton GmbH Co. KG |
| Street: | Wolfsbankring 9 |
| PO Box: | 11 05 23 |
| Place: | DE-45355 Essen |
| Telephone: | +49 201/68504-0 |
| Telefax: | +49 201/68504-31 |
| E-Mail: | info@pagel.com |
| Internet: | www.pagel.com |
| Information provided by: | Laboratory |
| Contact person: | Daniel Schempershofe |
| E-Mail: | schempershofe@pagel.de, labor@pagel.de |

1.4 Emergency telephone number

Germany: +49 6131/19240 (Poison Control Centre in Mainz, 7d / 24h, German/English)

United Kingdom: +44 870 600 626 / 0870 600 6266

2. Hazards identification

2.1 Classification of the substance or mixture

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

Skin Irrit. 2; H315 – Eye Dam. 1; H318 – STOT SE 3; H335

Further Information

When the building materials come into contact with water or become damp, a strong alkaline solution is produced. Due to the high alkalinity, wet building materials may provoke skin and eye irritation.

2.2 Label elements

Regulation (EC) Nr. 1272/2008

Pictograms und signal words for the products



Signal words: danger

Pictograms: corrosion; exclamation mark

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Hazard-determining components of labeling

Portland cement (chromate reduced): CAS-No. 65997-15-1

Hazard statements

 H315 Causes skin irritation.
 H318 Causes serious eye damage.
 H335 May cause respiratory irritation.

Precautionary statements

 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310 Immediately call a POISON CENTER or doctor/physician.
 P261 Avoid breathing dust.
 P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P312 Call a POISON CENTER or doctor/physician if you feel unwell.

If the product is offered or sold to the general public, additionally:

 P102 Keep out of reach of children.
 P501 Dispose of contents/container in accordance with applicable law and regulations.

2.3 Other hazards

The building materials do not meet the criteria for PBT or vPvB in accordance with Annex XIII of the REACH Regulation (EC) No 1907/2006.

As a result of the irritant properties of this product, repeated skin contact may adversely affect an existing dermatitis condition (or other existing skin condition).

The product contains chromate reducer, which results in a content of water-soluble chrome (VI) of less than 0.0002 %. In case of improper storage (moisture ingress) or storage exceeding the recommended storage time, however, the contained chromate reducer may lose its effect prematurely and a sensitizing effect of the cement/binder can occur upon skin contact (R43 and/or H317 and EUH203).

Further Information

Full text of R-, H- and EUH-phrases: see section 16.

3. Composition/Information on ingredients
3.1 Substances

Not applicable. The products are mixtures.

3.2 Mixtures

Preparation/Mixture of cement in compliance with DIN EN 197-1, aggregates in compliance with EN 12620, additives in compliance with EN 450, AbZ in compliance with EN13263 (quick ash, microsilica etc.) and additional substances in compliance with DIN EN 934-4.

| Constituante | Concentration range (M.-%) | EC-No. | CAS-No. | Registration No. | Classification according to (EC) No. 1272/2008 (CLP) | |
|------------------------------------|----------------------------|--------|---------|------------------|--|----------------------|
| Portland cement (chromate reduced) | 30-99 % | (1) | (2) | (3) | Skin Irrit. 2 Eye Dam. 1 STOT SE 3 | H315 H318 H335 |

(1) EC-No. of Portland cement clinker contained in the Portland cement 266-043-4.

(2) CAS-No. of Portland cement clinker contained in the Portland cement 65997-15-1.

(2) Portland cement clinker is, according to Art. 2.7(b) and Annex V.10 of EC Regulation 1907/2006 (REACH), exempt from the registration requirement

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4. First aid measures

4.1 Description of first aid measures

General information

If you feel unwell, seek medical advice. Show this safety data sheet to the doctor in attendance. If unconscious, place the person in the recovery position and seek medical advice immediately. Never give anything by mouth to an unconscious person. No special personal protective equipment is required for first aiders. First aiders should, however, avoid contact with wet building material.

After inhalation

Seek fresh air. Dust should quickly be removed from throat and nose. Consult a physician, should symptoms such as discomfort, coughing or persistent irritation occur.

After contact with skin

Remove adhering matter immediately. Before washing use a dry brush to remove dust from skin. Wash contaminated skin areas thoroughly with soap and water. Rinse well with water. Take off contaminated clothing and shoes immediately. Remove and wash contaminated clothing before re-use. If skin irritation persists, call a physician. No rings, watches or similar things should be worn. Product residues can remain and, therefore, can trigger skin reactions.

After contact with eyes

Rinse with plenty of water immediately, also under the eyelids, for at least 15 minutes. Remove contact lenses, if applicable. Keep eye wide open while rinsing. Do not rub eyes dry, because the mechanical stress can cause additional corneal injury. Consult an ophthalmologist immediately. Protect unharmed eye.

After ingestion

Do not induce vomiting. Rinse mouth and spit out liquid! Drink plenty of water after rinsing. Get immediate medical attention or contact the poison control center.

4.2 Most important symptoms and effects, both acute and delayed

Eye

Eye contact (dry or wet) may cause serious and potentially irreversible eye damage.

Skin

Sustained contact may cause irritation on damp skin (due to sweating or humidity). Contact with damp skin may cause skin irritation, dermatitis or severe skin damage.

Inhalation

Repeated inhalation of large amounts of flue dust over a long period of time increases the risk of developing lung diseases.

Environment

Under normal use, ready-to-use mortars are not hazardous to the environment.

4.3 Indication of any immediate medical attention and special treatment needed

When contacting a physician, take this SDS with you.

Symptomatic treatment (decontamination and vital functions).

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

The products are not flammable. Use extinguishing measures that are appropriate to the environment.

Extinguishing media which must not be used for safety reasons

High volume water jet.

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5.2 Special hazards arising from the substance or mixture

Read-for-use mortars are non-combustible and non-explosive and will not facilitate or sustain the combustion of other materials.

5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.

Prevent extinguishing water used by the fire department, or any other forms of the diluted product, from ending up in surface water or drinking water reservoirs. Contaminated extinguishing water and soil must be disposed of in accordance with official regulations.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Do not breathe dust. Use personal protective equipment. When handling the product, follow hygiene and safety precautions. Protect leaked material with tarpaulins to prevent it blowing away. (See section 7.)

6.2 Environmental precautions

Do not allow material to contaminate ground water system. Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.

Contact the responsible authority immediately if the product ends up in the soil, a body of water, or the sewer system.

6.3 Methods and material for containment and cleaning up

Absorb spilled material and reuse, if possible. Where possible, use dry methods to clean, such as vacuum exhaust (portable devices with highly efficient filter systems (EPA and HEPA filters, EN 1822-1:2009) or equivalent techniques), which do not generate dust formation. Never use compressed air for cleaning.

If dust is formed applying a dry cleaning method, personal protective equipment must be used. Avoid inhalation of flue dust and skin contact with the material. Place spilled material into a container for potential subsequent use.

6.4 Reference to other sections

See Sections 8 and 13 for further details.

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Avoid dust formation. Do not breathe dust. Avoid contact with skin, eyes and clothing. Do not eat, drink, smoke or take snuff at work. Keep away from food and drink. Do not allow product to come in contact with humid air before use.

For bagged goods and when using open mixing containers, first fill with water, then carefully add the dry cement. Maintain low drop height. Start stirrer slowly.

Advice on protection against fire and explosion

No special protective measures against fire required.

Further information on handling

When handling the product, follow hygiene and safety precautions. Handle, store and transport in compliance with local regulations and in labelled containers that are suitable for this product. When using do not eat or drink.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

See information supplied by the manufacturer. Store only in the original container. Do not use aluminum containers due to incompatibility of the materials. Never allow product to come in contact with water or humid air during storage. Keep in a dry, cool place. Protect from contamination. Use only clean equipment.

Further information on storage conditions

When not in use, the product must be stored in its original transport packing. Keep containers dry and

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tightly closed to avoid moisture absorption and contamination. Proper storage and compliance with the expiration date is a prerequisite for the effectiveness of the chromate reduction.
 Storage class: VCI Storage class 13 (non-flammable solids).

7.3 Specific end use(s)

These products are assigned to GISCODE ZP 1 (cement-containing products, low chromate, see also Section 15). Further information about safe handling, protective measures and rules of conduct can be gathered from GISCODE ZP 1. It is available as part of the hazardous substance information system of the Occupational Insurance Association of the Construction Industry at <http://www.gisbau.de>.

8. Exposure controls/Personal protection

8.1 Control parameters

Exposure limits (EH40)

| Type of evaluation value | Evaluation value | Peak limitation | Source | Monitoring procedure, e.g. |
|---------------------------------|--|------------------|-------------------------------|----------------------------|
| General dust limit value | | | | |
| Maximum allowable concentration | 8h 1,25 mg/m ³ (R) 10 mg/m ³ (I) | 2(II) 15 min. | 20 (I) TRGS 900 | TRGS 402 |
| Water-soluble Chromium(VI) | | | | |
| Restriction condition | 2 mg/kg in cement | Not determined. | Regulation (EC) No. 1907/2006 | EN 196-10 |

R = Respirable dust fraction.

I = Inhalable dust fraction.

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Measures to avoid skin contact according to state-of-the-art.

8.2.2 Individual protection measures, such as personal protective equipment

General information

Do not eat, drink or smoke when working. Wash hands and if necessary shower before breaks and after work to remove adherent cement/binding agent. Avoid contact with eyes and skin. After working with cement/binding agent, workers should wash or shower and use skin care products. Clean contaminated clothing, footwear, watches, etc. thoroughly before re-using them.

Respiratory protection

For spraying (PROC 7 und PROC 11), use appropriate respiratory protection, e.g. half-face mask with particle filter type FFP1 (e.g. according to EN 149, EN 140, EN 14387, EN 1827) or national standard. In the case of respirable dust and/or fumes, use self-contained breathing apparatus and dust impervious protective suit.

Hand protection

Protective gloves must be resistant to chemicals. The manufacturer recommends the following glove materials: nitril-impregnated cotton gloves with CE Mark. Safety gloves should be selected for the actual conditions of use and in accordance with the instructions for use provided by the manufacturer. Use tested protective gloves. Protective gloves should be replaced immediately if damaged or in case of signs of wear. Please note that the daily use of chemical gloves in practice may be considerably shorter than the permeation time calculated in EN 374 as a result of many different factors (for example temperature). Gloves made of the following materials are not suitable: leather gloves. Wear gloves only with clean hands. Wash and dry one's hands after use of gloves. Preventive skin protection by skin protection cream.

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Eye protection

In case of risk of splashing, wear protective glasses: Tightly fitting safety goggles (EN 166).

Skin protection

Wear suitable protective clothing. Protect from water. Impervious clothing, long sleeved clothing / closed work clothing, safety shoes / boots. Take off all contaminated clothing immediately.

Avoid contact of powder with neck and wrists due to possible skin irritation and / or dermatitis. No rings, watches or similar things should be worn. Product residues can remain and, therefore, can trigger skin reactions.

8.2.3 Environmental exposure controls

Water

Do not discharge building material into groundwater or wastewater systems in larger quantities. An increase in pH value is possible through exposure. At a pH value above 9, ecotoxicological effects may occur. Water directed or drained off into the wastewater system or surface water should therefore not lead to such a relevant pH value. Wastewater and groundwater regulations must be observed.

Soil

Compliance with the German Federal Soil Protection Act and the German Federal Soil Protection and Contamination Ordinance. No special control measures required.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

General information

Physical state: powder
Colour: grey/white
Odour: odourless

Important health, safety and environmental information

| Parameter | Value |
|---|----------------------------|
| pH-Value (at 20 °C) | 11,0-13,5 |
| Changes in physical state | |
| Melting point | > 1250 °C |
| Initial boiling point and boiling range | n.a. |
| Flash point | n.a. |
| Flammability | |
| Solid | n.a. |
| Gas | n.a. |
| Explosive properties | |
| not explosive | |
| Lower explosion limits | n.a. |
| Upper explosion limits | n.a. |
| Ignition temperature | n.a. |
| Vapour pressure | n.a. |
| Density | 2,75-3,2 g/cm ³ |
| Water solubility (at 20 °C) | 0,1-1,5 g/L |
| Partition coefficient | n.a. |
| Viscosity, dynamic | n.a. |
| Viscosity, kinematic | n.a. |
| Evaporation rate | n.a. |

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9.2 Other information

Auto-ignitions temperature

Solid: n.a.
Gas: n.a.

10. Stability and Reactivity

10.1 Reactivity

Ready-to-use mortars are hydraulic materials. When mixed with water, an intended reaction takes place. As a result, cement hardens and forms a solid mass, which does not react with its environment.

10.2 Chemical stability

The material is stable, as long as it is properly stored (see Section 7). It should be kept dry. Contact with incompatible materials should be avoided. Wet cement/binding agent is alkaline and incompatible with acids, ammonium salts, aluminum and other base metals. Here, hydrogen can be formed.

Ready-to-use mortars dissolve in hydrofluoric acid, forming corrosive silicon tetrafluoride gas. Avoid contact with these incompatible materials. With water, ready-to-use mortars form calcium silicate hydrates, calcium aluminate hydrates and calcium hydroxide. The calcium silicates may react with strongly oxidizing agents such as fluorides.

10.3 Possibility of hazardous reactions

Not applicable.

10.4 Conditions to avoid

Moisture during storage can lead to lumping and loss of product quality.

10.5 Incompatible materials

Acids, ammonium salts, aluminum or other base metals.

10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

Other information

Material does not decompose into hazardous components.
Never allow products to get in contact with water during storage.

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

No data is available on the product itself.

Long term exposure to concentrations over the maximum occupational exposure limit can lead to health problems. Product dust may be irritating to eyes, skin and respiratory system. Risk of infection of the lung after prolonged inhalation of dust particles. These may irritate eyes, nose and throat. Dust causes irritation to the eyes, skin and mucous membranes and may lead to toxic lung oedemas. Swallowing large amounts can be detrimental to health. Ingestion causes irritation of upper respiratory system and gastrointestinal disturbance.

Toxicity after skin contact: LD50/dermal/rabbit: 2000 mg/kg (24 h) (4)

Irritation and corrosivity

The product causes irritation of eyes, skin and mucous membranes.

After eye contact: Irritating to eyes. Resin particles, like other inert materials, are mechanically irritating to eyes. At high concentrations material causes severe inflammation of conjunctiva and cornea. May cause irreversible eye damage. Danger of blindness.

After skin contact: Repeated or prolonged exposure can cause local skin irritation especially in skin folds or when wearing of tight clothing. May cause redness, skin irritation and/or dermatitis. In some cases, eczema can be formed after contact with wet cement.

Literary reference (4, 11, 12)

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Sensitizing effects

The eczema is triggered either by the pH value (irritative contact dermatitis) or by immunological reactions with water-soluble chromium (VI) compounds (allergic contact dermatitis).

Literary reference (1, 5, 13)

Severe effects after repeated or prolonged exposure

Inhalation of dust may cause shortness of breath, tightness of the chest, a sore throat and cough.

Repeated or continued skin contact can cause skin changes. This preparation is a skin irritant, and repeated contact can intensify the irritant effect. Repeated or prolonged contact causes sensitization, asthma and eczemas. Excessive exposure may aggravate preexisting asthma and other respiratory disorders (e.g. emphysema, bronchitis, reactive airways dysfunction syndrome).

Carcinogenic/mutagenic/toxic effects for reproduction

No data is available on the product itself.

Literary reference (1, 14, 15, 16)

Empirical data on effects on humans

When mixed with water, the material may produce serious eye and skin damage in case of extended contact. Mechanical skin stress at the same time is able to intensify such effects.

12. Ecological information

12.1 Toxicity

Slight acute toxicity. Daphnia magna (U.S. EPA, 1994a) (7); Algae (Selenastrum capricornutum) (U.S. EPA, 1993) (8). Ready-to-use mortars are not considered to be hazardous to water organisms.

Aquatic toxicity: Larger amounts: A possible toxic effect on aquatic life cannot be ruled out as a result of the change in pH value.

If the product is released, it is primarily adsorbed by sediments and soil.

12.2 Persistence and degradability

Not applicable.

12.3 Bioaccumulative potential

Not applicable.

12.4 Mobility in soil

Not applicable.

12.5 Results of PBT and vPvB assessment

Not applicable.

12.6 Other adverse effects

Not applicable.

Other information

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Avoid subsoil penetration.

13. Disposal considerations

13.1 Waste treatment methods

Hardened material: Disposal in accordance with the official regulations. Do not flush into surface water or sanitary sewer system.

Waste from residues: Mop up unhardened material whilst dry. Mop up avoiding dust formation and proceed as set out in the Waste Law.

Waste disposal number of waste from residues/unused products

170101: CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES): concrete, bricks, tiles and ceramics; concrete

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Waste disposal number of used product

101314: WASTES FROM THERMAL PROCESSES: wastes from manufacture of cement, lime and plaster and articles and products made from them; waste concrete and concrete sludge

Waste disposal number of contaminated packaging

150110: WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED: packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by dangerous substances - classified as hazardous waste.

Contaminated packaging

Empty packaging must be completely drained to the state of the art before being disposed. Dispose according to the local regulations. Recycle empty packaging after use.

14. Transport information

Ready-to-use mortars are not subject to the international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID). Therefore, no dangerous goods classification is required.

14.1 UN number

Not applicable.

14.2 UN proper shipping name

Not applicable.

14.3 Transport hazard class(es)

Not applicable.

14.4 Packing group

Not applicable.

14.5 Environmental hazards

Not applicable.

14.6 Special precautions for user

Not applicable.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable.

15. Regulatory information

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

EU Regulatory information

No Substances of Very High Concern (SVHC) according REACH Article 57.

Observe: Directive 1907/2006 (REACH) ANNEX XVII, 47

In the scope of the "European Agreement on Workers Health Protection through the Good Handling and Use of Crystalline Silica and Products containing it (NePSi)", cement manufacturers undertook to introduce so-called "good practices" for safe handling (<http://www.nepsi.eu/good-practice-guide.aspx>).

National regulatory information

Water contaminating class (D):

1 - slightly water contaminating

Status:

WGK 1 (slightly hazardous to water)

GISCODE ZP 1:

cement-containing products, low in chromate

Storage class according to TRGS 510:

Storage class 13 (non-flammable solids)

The amount of chromate was measured in accordance with TRGS 613.

Technical Rules for Hazardous Substances 900 "Maximum Allowable Concentrations" (TRGS 900)

Technical Rules for Hazardous Substances 402 "Determination and Evaluation of Hazards during Operations with Hazardous Substances" (TRGS 402)

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Other information

TSCA (Toxic Substance Control Act):

All ingredients of the mixtures appear on the TSCA (Toxic Substance Control Act) Inventory.

15.2 Chemical Safety Assessment

A chemical safety assessment has not been carried out.

16. Other information

16.1 Indication of changes

New version according to Regulation (EU) No 453/2010.

16.2 Relevant R-phrases (according to Regulation 1999/45/EC)

R37/38 Irritating to respiratory system and skin.

R41 Risk of serious damage to eyes.

R43 May cause sensitisation by skin contact.

16.3 Relevant H- and EUH-phrases (according to Regulation (EC) NR. 1272/2008 [CLP])

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

EUH203 Contains Chromium(VI). May produce an allergic reaction.

16.4 Other information

The information is based on present levels of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights. The product is to be used exclusively for the applications named in the technical data sheet or in the processing instructions. The receiver of our products is singularly responsible for adhering to existing laws and regulations.

16.5 Abbreviations and acronyms

| | |
|---------|--|
| ACGIH | American Conference of Industrial Hygienists |
| ADR/RID | European Agreements on the transport of Dangerous goods by Road/Railway' |
| APF | Assigned Protection Factor |
| CAS | Chemical Abstracts Service |
| CLP | Classification, labeling and packaging (Regulation (EC) No 1272/2008) |
| COPD | Chronic Obstructive Pulmonary Disease |
| DNEL | Derived no-effect level |
| EC50 | Half maximal effective concentration |
| ECHA | European Chemicals Agency |
| EINECS | European Inventory of Existing Commercial Chemical Substances |
| EPA | Type of high efficiency air filter |
| ES | Exposure scenario |
| EWC | European Waste Catalogue |
| FF P | Filtering face piece against particles (disposable) |
| FM P | Filtering mask against particles with filter cartridge |
| HEPA | Type of high efficiency air filter |
| H&S | Health and Safety |
| IATA | International Air Transport Association |
| IMDG | International Agreement on the Maritime Transport of Dangerous Goods |
| IUPAC | International Union of Pure and Applied Chemistry |
| LC50 | Median lethal dose |
| MEASE | Metals estimation and assessment of substance exposure |
| OELV | Occupational exposure limit value |
| PBT | Persistent, bio-accumulative and toxic |
| PNEC | Predicted no-effect concentration |
| PROC | Process category |
| RE | Repeated exposure |
| REACH | Registration, Evaluation, Authorization and Restriction of Chemicals |

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| | (Regulation (EC) 1907/2006) |
| RPE | Respiratory protective equipment |
| SCOEL | Scientific Committee on Occupational Exposure Limit Values |
| SDS | Safety Data Sheet |
| SE | Single exposure |
| STP | Sewage treatment plant |
| STOT | Specific target organ toxicity |
| TLV-TWA | Threshold Limit Value-Time-Weighted Average |
| TRGS | Technical Rules for Hazardous Substances |
| TSCA | Toxic Substances Control Act (USA) |
| UVCB | Substances of Unknown or Variable Composition, Complex Reaction Products or Biological Materials |
| VCI | German Chemical Industry Association |
| VLE-MP | Exposure limit value-weighted average in mg by cubic meter of air |
| vPvB | Very persistent, very Bioaccumulative |
| VwVwS | Administrative Regulation on Substances Hazardous to Water |

16.6 Process categories and descriptors

Für den professionellen Anwender lassen sich Verfahrenskategorien und Deskriptoren gemäß ECHA Leitfaden R.12 (ECHA-2010-G-05) zuordnen (siehe Tabelle).

| PROC | Identified uses - Use description | Manufacture/ Formulation of | Professional/Indus- trial use of |
|------|--|---|-------------------------------------|
| | | Ready-to-use mortar: grout and repair mortar | |
| 2 | Use in closed, continuous process with occasional controlled exposure (e.g. sampling) | X | X |
| 3 | Use in closed batch process (formulation) | X | X |
| 5 | Mixing or blending in batch processes for formulation of mixtures and articles (multiple and/or significant contact) | X | X |
| 7 | Industrial spraying | | X |
| 8a | Transfer (charging/discharging) from/to vessels/large containers at non-dedicated facilities | | X |
| 8b | Transfer (charging/discharging) from/to vessels/large containers at dedicated facilities | X | X |
| 9 | Transfer into small containers (dedicated filling plant, including weighing) | X | X |
| 10 | Roller application or brushing | | X |
| 11 | Non-industrial spraying | | X |
| 13 | Treatment of articles by dipping and pouring | | X |
| 14 | Production of mixtures or articles by tableting, compression, extrusion, pelletization | X | X |
| 19 | Hand-mixing with intimate contact and only personal protective equipment (PPE) available | | X |
| 22 | Potentially closed processing operations with minerals/metals at elevated temperature industrial setting | | X |
| 26 | Handling of solid inorganic substances at ambient temperature | X | X |

16.7 Key literature references and sources for data

- (1) Portland Cement Dust - Hazard assessment document EH75/7, UK Health and Safety Executive, 2006: <http://www.hse.gov.uk/pubns/web/portlandcement.pdf>.
- (2) Technische Regel für Gefahrstoffe „Arbeitsplatzgrenzwerte“, 2009, GMBI Nr.29 S.605.

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PAGEL Ready-to-use mortar: grout and repair mortar

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