

SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Q-FLASH® cem 50 (P)

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

1.1. Product identifier

Product name Q-FLASH® cem 50 (P)

Product code -

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

Use of the Substance/Mixture Mixed cement

1.3. Details of the supplier of the safety data sheet

Company/Undertaking Identification Concretum Construction Science AG
Breitloostrasse 7
8154 Oberglatt
Switzerland
Phone: +41 44 445 13 46
info@concretum.com

1.4. Emergency telephone number 145 (Tox Info Suisse)
International: +41 44 251 51 51
Concretum Construction Science AG: +41 44 445 13 46 (08:00 - 16:00)
www.concretum.com

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Version 1.1 (Previous versions: 1.0)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

according to the Globally Harmonized System

Specific target organ toxicity (single exposure, inhalation), Cat. 3, H335
Skin Sensitisation, Cat. 1, H317
Skin corrosion/irritation, Cat. 2, H315
Serious eye damage/eye irritation, Cat. 1, H318

Low-chromate preparation with cement in accordance with Directive 2003/53/EC

Additional information

For the full text of the phrases mentioned in this Section, see Section 16.

2.2. Label elements



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.

Precautionary statements

P261: Avoid breathing dust.
P264: Wash hands thoroughly after handling.
P280: Wear protective gloves and eye protection.
P302+P352: IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.

Supplemental information

None.

Product identifier

Portland cement (<1% quartz), CAS-No. 65997-15-1
Calcium sulfoaluminate cement, CAS-No. -

2.3. Other hazards

The product contains chromate reducer, whereby the content of water-soluble chromium (VI) is less than 0.0002%. In the case of improper storage (ingress of moisture) or superimposition, however, the chromate reducer contained may prematurely lose its effectiveness and a sensitizing effect of the cement / binder on skin contact may occur (H317 or EUH203).

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Mixture of cement and additives

Components	Weight %	Product identifier
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Portland cement (<1% quartz)	59% - 94%	Skin Irrit. 2 H315, Skin Sens. 1 H317, Eye Dam. 1 H318, STOT SE 3 H335	CAS-No.: 65997-15-1
Calcium sulfoaluminate cement	2,5% - 5%	Skin Irrit. 2 H315, Eye Dam. 1 H318, Skin Sens. 1 H317, STOT SE 3 H335	CAS-No.: -

For the full text of the phrases mentioned in this Section, see Section 16.

Hazardous impurities None known.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Rinse mouth, nose and throat with plenty of water. Consult a physician if symptoms persist.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
Eye contact	Do not rub your eye, as this may cause additional mechanical irritation or damage to the cornea. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. If easy to do, remove contact lens, if worn. Call a physician or poison control centre immediately.
Ingestion	Clean mouth with water and drink afterwards plenty of water. If symptoms persist, call a physician. Do not induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Avoid breathing dust. Inhalation of dust may cause shortness of breath, tightness of the chest, a sore throat and cough. Direct contact with cement can lead to corneal damage, on the one hand by the mechanical action and on the other hand by an immediate or subsequent irritation or inflammation. Direct contact with larger quantities of dry cement or splashes of wet cement may have effects ranging from moderate eye irritation (eg, conjunctivitis or corneal inflammation) to serious eye damage and blindness.

4.3. Indication of any immediate medical attention and special treatment needed

None known.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media No special measures required.

Unsuitable extinguishing media None.

5.2. Special hazards arising from the substance or mixture

The product itself does not burn.

5.3. Advice for firefighters

Special protective equipment for firefighters

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

Specific methods

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Use personal protective equipment. Avoid contact with skin and eyes. Avoid breathing dust.

For emergency responders

Avoid dust formation. Evacuate personnel to safe areas.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Pick up and arrange disposal without creating dust. Knock down dust with water spray jet.

6.4. Reference to other sections

See chapter 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

When using, do not eat, drink or smoke. Wash hands and exposed skin before eating, drinking or smoking and after work. Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed. Avoid contact with eyes and skin. Remove and wash contaminated clothing before re-use. Contaminated work clothing should not be allowed out of the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Store at room temperature in the original container. Keep away from humid air and water. The product contains chromate reducer, whereby the content of water-soluble chromium (VI) is less than 0.0002%. In the case of improper storage (ingress of moisture) or too long storage, the chromate reducer contained may prematurely lose its effectiveness and a sensitizing effect of the cement / binder on skin contact may occur (H317 or EUH203).

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit(s)

No data is available on the product itself.

Portland cement (<1% quartz) (CAS 65997-15-1)

ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)	1 mg/m ³ TWA (particulate matter containing no Asbestos and <1% Crystalline silica, respirable particulate matter)
NIOSH - Pocket Guide - TWAs	10 mg/m ³ TWA (total dust) 5 mg/m ³ TWA (respirable dust)
U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)	15 mg/m ³ TWA (total dust) 5 mg/m ³ TWA (respirable fraction)
U.S. - OSHA - Vacated PELs - TWAs	10 mg/m ³ TWA (total dust) 5 mg/m ³ TWA (respirable fraction)
U.S. - California - Occupational Exposure Limits - PELs	5 mg/m ³ PEL (respirable fraction, listed under Particulates not otherwise regulated) 10 mg/m ³ PEL (total dust, listed under Particulates not otherwise regulated)

8.2. Exposure controls

Appropriate engineering controls

General industrial hygiene practice. Wash hands before breaks and at the end of workday. Avoid contact with the skin and the eyes. Remove contaminated clothing immediately and drench affected skin with plenty of water, then wash with soap and water. Wash contaminated clothing before re-use. If possible, do not kneel in mortar or fresh concrete while working. If working in a kneeling position cannot be avoided, wear protective clothing that is completely sealed.

Personal protection equipment

Respiratory protection

Do not breathe dust. Suitable mask with particle filter P3 (European Norm 143)

Hand protection

For prolonged or repeated contact, wear waterproof, abrasion-resistant, and alkali-resistant protective gloves with CE marking. Leather gloves are not suitable due to their water permeability. Chemical protective gloves (Cat. III) are not required when preparing and processing the ready-to-use mixture. Tests have shown that nitrile-impregnated cotton gloves (layer thickness approx. 0.15 mm) provide adequate protection for a period of 480 minutes. Change gloves if they become damp. Keep spare gloves available. The selected protective gloves have to satisfy the specifications of Regulation (EU) No. 2016/425 and the standard EN 374 derived from it. Be aware that in daily use the durability of a chemical resistant protective glove can be notably shorter than the break through time measured according to EN 374, due to the numerous outside influences (e.g. temperature). Use protective skin cream before handling the product.

Eye protection

Avoid contact with eyes. In case of dust formation wear tightly fitting goggles. Safety glasses with side-shields conforming to EN166.

Skin and body protection

Wear closed, long-sleeved protective clothing and sturdy footwear. If contact with wet cement cannot be avoided, protective clothing should also be waterproof. Ensure that no wet cement runs into

your shoes or boots from above.

Thermal hazards

No special measures required.

Environmental exposure controls Prevent product from entering surface water or sewage.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Powder.
Colour	Gray.
Odour	Odorless.
Melting point/ freezing point:	> 1250 °C
Boiling point or initial boiling point / range:	Not determined.
Flammability:	non-flammable
Lower and upper explosion limit:	Not determined.
Flash point:	Not determined.
Auto-ignition temperature:	Not determined.
Decomposition temperature:	Not determined.
pH:	12 - 14 (aq. Susp.)
Kinematic viscosity:	Not determined.
Solubility:	0.1 - 1.5 g/l (Water)
Partition coefficient n-octanol/water (log value):	Not determined.
Vapour pressure:	Not determined.
Density and/or relative density:	2.75 - 3.20
Relative vapour density:	Not determined.
Particle characteristics:	Not applicable.

9.2. Other information

9.2.1 Information with regard to physical hazard classes	No information available.
9.2.2 Other safety characteristics	Bulk density 900 - 1800 kg/m ³ .

SECTION 10: Stability and reactivity

10.1. Reactivity	No hazards to be specially mentioned. Cement is a hydraulic binder. An intended reaction takes place in contact with water. The cement hardens and forms a solid mass that does not react with its surroundings.
10.2. Chemical stability	The product is chemically stable. Stable under recommended storage conditions.
10.3. Possibility of hazardous reactions	Dry mortar is stable as long as it is stored properly and dry (section 7). Avoid contact with incompatible materials. Moist cement / binder is alkaline and incompatible with acids, ammonium salts, aluminum and other base metals. In this case, hydrogen can be formed. Commercial dry mortar is partially soluble in hydrofluoric acid, forming corrosive silicon tetrafluoride gas.

10.4. Conditions to avoid	Dust arising from the dry mixture may irritate the respiratory tract. Repeated inhalation of larger amounts of dust increases the risk of lung disease. The product reacts alkaline with moisture. The product mixed with water may cause serious skin and eye damage on prolonged contact.
10.5. Incompatible materials	Can corrode base metals. Hydrofluoric acid. Ammonium salts. aluminum Strong oxidizing agents. Acids.
10.6. Hazardous decomposition products	None under normal use.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	Based on available data, the classification criteria are not met. No data is available on the product itself.
Skin corrosion/irritation	Causes skin irritation. Individuals may develop skin eczema after exposure to moist cement. These are triggered either by the pH (irritant contact dermatitis) or by immunological reactions with water-soluble chromium(VI) (allergic contact dermatitis).
Serious eye damage/eye irritation	Causes serious eye damage.
Respiratory or skin sensitisation	May cause an allergic skin reaction.
Carcinogenicity	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
Specific target organ toxicity - Single exposure	May cause respiratory irritation.
Specific target organ toxicity - Repeated exposure	Based on available data, the classification criteria are not met. Long-term exposure to respirable cement dust above the occupational exposure limit may result in coughing, shortness of breath, and chronic obstructive airway changes. At low concentrations, no chronic effects were observed.
Aspiration hazard	Based on available data, the classification criteria are not met.
Human experience	No data available.

11.2. Information on other hazards

Endocrine disrupting properties	Contains no endocrine disrupting chemicals.
Other information	No data available.

SECTION 12: Ecological information

12.1. Toxicity	The Portland cement contained in the dry mortar is considered to be non-hazardous to the environment. Portland cement ecotoxicological studies on <i>Daphnia magna</i> (U.S.A.P., 1994a) and <i>Selenastrum Coli</i> (U.S.A.P.A., 1993) have shown only a minor toxic effect. Therefore, the LC50 and EC50 values could not be determined. No toxic effects on sediments were found. However, the release of larger amounts of dry mortar in water may increase the pH and, in certain circumstances, be toxic to aquatic life.
12.2. Persistence and degradability	The methods for determining biodegradability are not applicable to inorganic substances. Can be eliminated from water by sedimentation.
12.3. Bioaccumulative potential	Bioaccumulation is unlikely.
12.4. Mobility in soil	No data available.
12.5. Results of PBT and vPvB assessment	This mixture does not contain any substances classified as PBT, vPvB or endocrine disruptors at a concentration above 0.1%.
12.6. Endocrine disrupting properties	Contains no endocrine disrupting chemicals.
12.7. Other adverse effects	This product has no known eco-toxicological effects.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues / unused products	Can be landfilled, when in compliance with local regulations. The product should not be allowed to enter drains, water courses or the soil.
Contaminated packaging	Dispose of as unused product.

SECTION 14: Transport information

14.1. UN number or ID 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. Maritime transport in bulk according to IMO instruments	Not applicable.
UN Model Regulations	
ADR/RID	Not regulated.
IMDG	Not regulated.
IATA	Not regulated.
Further Information	Not classified as dangerous in the meaning of transport regulations.

SECTION 15: Regulatory information

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

Regulatory Information	None.
Portland cement (<1% quartz) (CAS 65997-15-1)	
Inventory - United States - Section 8(b) Inventory (TSCA)	Present (ACTIVE)

15.2. Chemical safety assessment	The contained Portland cement clinker is in accordance with Art. 2.7 (b) and Annex V, 7 of EC Regulation 1907/2006 (REACH) exempted from registration.
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SECTION 16: Other information

Key or legend to abbreviations and acronyms	CLP: Classification according to Regulation (EC) No. 1272/2008 (GHS) EWC: European Waste catalogue code MAK: Occupational exposure limit. OECD: Organisation for Economic Co-operation and Development OEL: Occupational Exposure Limits for Hazardous Agents in the Workplace STEL: Short Term Exposure Limit TLV: Threshold limit value TWA: time weighted average VeVA: Ordinance on the Treatment of Waste (SR 814.610) VOC: Volatile organic compounds (VOC) content WEL: workplace exposure limit
Key literature references and sources for data	According to information supplied by the manufacturer. Sources of key data used to compile the Safety Data Sheet: REACH, ECHA.
Classification procedure	Calculation method .
Full text of phrases referred to under sections 2 and 3	H315: Causes skin irritation. H317: May cause an allergic skin reaction. H318: Causes serious eye damage. H335: May cause respiratory irritation.

Further information

Conversion °C=>°F: °F = (°C * 1.8) + 32

Instructions for use

Restricted to professional users.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.