

Safety data sheet according to Regulation (EC) No. 1907/2006

Trade name: Portland cement according to ASTM C150

Revision date: 17 November 2017

Version: 1283-0

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

1.1 Product identifier

Substance name/ Trade name: **Portland cement according to ASTM C150**

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

Relevant identified uses: Test dust

Uses advised against: -

1.3 Details of the supplier of the safety data sheet

Manufacturer/ Supplier: KSL staubtechnik gmbh

Address/ PO Box: Westendstrasse 11

Nat.-Ident./ Postcode/ city: DE - 89415 Lauingen

Telephone/ Fax/ E-mail: +49 (0) 9072 / 95 00-0 / Fax no: -50 / info@ksl-staubtechnik.de

1.4 Emergency telephone number

+49 (0) 9072 / 95 00-0 (Accessibility: Mon-Thu 8am to 4pm, Fri 8am to 12pm)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Cement dust may irritate the respiratory tract. When cement reacts with water or when the cement becomes damp, a strong alkaline solution is produced. Due to the high alkalinity, wet cement may provoke skin and eye irritation.

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

Hazard class: Skin irrit. 2

Hazard category: 2

Hazard warnings: H315 Skin corrosion/ irritation

Hazard class: Eye dam. 1

Hazard category: 1

Hazard warnings: H318 Serious eye damage/ irritation

Hazard class: STOT Single 3

Hazard category: 3

Hazard warnings: H335 Respiratory tract irritation

2.2 Label elements

2.2.1 Label elements according to Regulation (EC) No. 1272/2008



GHS05



GHS07

Signal word: Hazard

Hazards: H315 Causes skin irritation
H318 Causes serious eye damage.
H335 May irritate the respiratory tract.

Safety precautions: P280 Wear protective gloves/ protective clothing/ eye protection
P261 Avoid breathing dust
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P304+P340+P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a doctor if you feel unwell.
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 doctor.
P333+P313 If skin irritation: Get medical advice/ attention.

If product is accessible to everybody, additionally:
P102+P501: Keep out of the reach of children. Dispose of contents/container to suitable waste collection points.

2.3 Other hazards

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

The product contains a chromate reducing agent, whereby the content of water-soluble chromium (VI) is less than 0.0002% (determined according to EN 196-10). In the event of improper storage (access of moisture) or superposition, the chromate reducing agent contained may lose its effectiveness prematurely and a sensitising effect of the cement cannot be excluded when in contact with skin. (R 43 and H 317 or EUH203)

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SECTION 3: Composition/ information on ingredients

3.1 Substances

The product is a mixture.

3.2 Mixtures

Composition/ information on ingredients

Description of the mixture:

Standard cement in accordance with DIN EN 197-1 and DIN EN 197-4 or if necessary, approval document of the Deutsches Institut für Bautechnik.

Hazardous ingredients:

Product identifier	CAS No.	EC No.	Concentration range [M.-%]	Reg. no. (REACH)	Classification according to Regulation (EC) No. 1272/2008
Portland cement clinker	65997-15-1	266-043-4	5-100 %	(a)	- Category 1 - Skin irrit. 2 H315 - Sens. skin 1B H317 - Eye dam. 1 H318 - STOT-single 3 H335
Flue Dust, (b)	68475-76-3	270-659-9	0.1-5%	01-2119486767-17-xxxx	- Eye irrit. 1 H318 - STOT-single 3 H335 - Sens. skin 1B H317 - Skin irrit. 2 H315

(a) Portland cement clinker is exempted from the registration requirement in accordance with Article 2.7 (b) and Annex V.10 of Regulation (EC) No 1907/2006 (REACH).

(b) Flue Dust is a substance (UCVB) which is produced during cement clinker production; other common names are cement kiln dust, bypass dust, filter dust, EGR dust and clinker dust.

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes:

If symptoms persist, it is advised to consult a doctor. Please specify substance/ product and measures taken to the doctor. No personal protective equipment is needed for first aid workers. First aid workers should avoid contact with wet cement.

After inhalation:

Ensure supply of fresh air. Any dust in the throat and nasal passages should be cleared promptly. Consult a doctor in case of symptoms such as discomfort, cough or persistent irritation.

After skin contact:

For dry cement, remove and rinse abundantly with water. For wet cement, wash with plenty of water. Remove contaminated clothing, footwear, watches, etc. Clean thoroughly before re-using them. Seek medical treatment if skin problems should arise.

After eye contact:

Do not rub eyes when dry, since additional cornea damage could occur due to mechanical stress. Remove contact lenses if any. Open the eyelid(s) widely and flush eye(s) immediately by thoroughly rinsing under running water for at least 20 minutes to remove all particles. If possible, use an isotonic eye rinsing solution (0.9 % NaCl). Always consult an occupational physician or ophthalmologist.

After ingestion:

Do not induce vomiting. If the person is conscious, wash out mouth with water and give plenty of water to drink. Get immediate medical attention or contact the anti poison centre.

4.2 Most important symptoms and effects, both acute and delayed

Eyes:

Eye contact with cement (dry or wet) may cause serious and potentially irreversible injuries.

Skin:

Cement may have an irritating effect on wet skin (due to sweat or humidity) after prolonged contact. Cement in contact with wet skin may cause skin irritation, dermatitis or serious skin damage. For further information see (1).

Inhalation:

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

Environment:

Under normal use, cement is 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.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable:

Cement is not flammable.

5.2 Special hazards arising from the substance or mixture

Cements are non-combustible and non-explosive and will not facilitate or sustain the combustion of other materials.

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5.3 Advice for firefighters

No special measures required, since cement does not pose any fire-related hazards.

5.4 Additional advice

None

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Wear protective clothing as described under Section 8. Follow the instructions for safe use, as described under Section 7.

6.1.2. For emergency responders

Emergency plans are not necessary. With high dust levels, respiratory protection is however required.

6.2 Environmental precautions

Do not wash cement down sewage or into surface water or groundwater.

6.3 Methods and material for containment and cleaning up

6.3.1 Notes for containment

Collect cement spillage and reuse it if possible.

6.3.2 Notes for cleaning up

Use dry clean-up methods such as vacuum extraction (Industrial portable units, equipped with high efficiency air filters (EPA and HEPA filters, EN 1822-1:2009) or equivalent technique) which do not cause dust generation. Never use compressed air for cleaning. If dust should be generated during dry cleaning, make sure that the workers wear the appropriate personal protective equipment. Avoid inhalation of cement dust and contact with skin. Place spilled materials into a container. These may be re-used.

6.3.3 Advice on inappropriate containment and cleaning methods

Never use compressed air for cleaning.

6.4 Reference to other sections

See Sections 8 and 13 for more details.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

7.1.1 Recommendations on safe handling

Follow the recommendations as given under Section 8. To clean up dry cement, see Subsection 6.3.

Measures to prevent fire and explosion

Not applicable.

Measures to prevent aerosol and dust generation

Do not sweep. For cleaning, use suitable methods as dry as possible - such as vacuum intake - that do not cause dust generation.

Measures to protect the environment

No special measures required.

7.1.2 Advice on general occupational hygiene

During work do not drink, eat or smoke. Wash hands after use/ contact. In dusty atmosphere, use breathing masks and safety goggles. Use protective gloves to avoid skin contact.

7.2 Conditions for safe storage, including any incompatibilities

Advice on storage conditions

Cement should be stored under dry, waterproof conditions (i.e. with internal condensation minimised), clean and protected from contamination. To prevent engulfment or suffocation, do not enter a confined space, such as a silo, bin, bulk truck, or other storage container or vessel that stores or contains cement without taking the proper security measures. Cement can build-up or adhere to the walls of a confined space, which can collapse unexpectedly. Do not use aluminium containers due to incompatibility of the materials.

For cements containing chromate reducers, it must be borne in mind that in case of non-appropriate storage (moisture penetration) or too long storage, the contained chromate reducers can lose its efficacy prematurely so that a sensitizing effect of the cement in skin contact cannot be excluded.

Requirements for storage rooms and vessels

Store in dry and sealed containers, possibly the original ones.

Storage class

VCI: 13 (non-flammable solids).

7.3 Specific end use(s)

Industry and sector specific guidance

No additional information for the specific end uses (see Section 1.2).

This product is classified with GISCODE ZP 1 (cement-based products, low in chrome) (see Section 15). Further information on safe handling, protection measures and rules of conduct can be found in GISCODE ZP 1. It is available as part of the Hazardous Substance Information System of the Berufsgenossenschaft der Bauwirtschaft (German professional association for the building industry) on www.gisbau.de.

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SECTION 8: Exposure controls/ personal protection

8.1 Control parameters

Components with workplace-related limit values to be monitored:

Chemical identity		National limit value	Peak limitation	Exposure type	Comment/ Legal provision	Monitoring procedures, e.g.
General dust limit value	-8 h	1.25 (A) mg/m ³ (respirable)	2 (II) 15 min. 20 (E)	inhalative	Workplace-related limit value TRGS 900	TRGS 402
General dust limit value	-8 h	10 (E) mg/m ³ (inhalable)		inhalative	Workplace-related limit value TRGS 900	TRGS 402
Water-soluble Chromium VI		2 ppm in cement	not specified		Regulation (EC) No. 1907/2006	EN 196-10

8.2 Exposure controls

To comply with workplace-related limit values, combined technical and individual protection measures are often necessary. If no appropriate workplace-related measurements are available for exposure, exposure estimation will be carried out and suitable protection measures will be chosen by using MEASE (Reference 3).

Recommended measuring procedures for workplace-related measurements: see the professional association series of papers. Technical measures and the selection of appropriate processes have priority over the use of personal protective equipment. For the identified uses (Section 1.2), technical control devices and personal protection measures are recommended.

8.2.1 Appropriate engineering controls

Measures to reduce generation of dust and to avoid dust propagating, such as suitable exhaust ventilation and clean-up methods, which do not raise dust.

8.2.2 Individual protection measures, such as personal protective equipment

General

Treat the product in compliance with the safety instructions.

Eye/ face protection

In the case of dust generation or risk of splashing, wear safety goggles according to EN 166.



Skin/ hand protection

Use impervious, abrasion and alkali-resistant gloves. For example, CE-marked nitrile-impregnated cotton gloves are suitable (see BGR - Rule by the Social Insurance against Occupational Hazards BGR/GUV-R 195). Observe the maximum wearing time. Leather gloves are not suitable due to their water permeability and may release chromate compounds. Wear boots and long-sleeved clothing. If contact with wet cement cannot be avoided, protective clothing should also be waterproof. Particular care should be taken to ensure that wet cement does not enter shoes or boots. Use skin protection products, in particular after work.



Respiratory protection

In case the exposure limit values are exceeded (e.g. with open handling of powdery product), a suitable breathing mask with P2 particle filter must be worn according to Standard 143. In the unlikely event of formation of particularly high dust concentrations, a self-contained breathing apparatus may be advisable.



Occupational hygiene

During work do not eat, drink or smoke. Before breaks and after working, workers should wash hands and, if possible, shower to remove adhering cement. Avoid contact with eyes and skin. Immediately after working with cement, workers should wash or shower and use skin moisturisers. Clean contaminated clothing, shoes, watches, etc., before re-using.

8.2.3 Environmental exposure controls

Air

Compliance with dust emission limit values according to the Technical Instructions on Air Quality Control.

Water:

Do not wash cement down sewage and drainage systems. Due to exposure, an increase in the pH value may occur. If pH is found to be above 9, ecotoxicological effects may arise. The water led or flowing into the drainage system or in surface water must therefore not result in a corresponding pH-value amount. Wastewater and groundwater regulations must be observed.

Soil:

Compliance with the Federal Soil Protection Act (BBodSchG) and the Federal Soil Protection Ordinance (BBodSchV). No special control measures required.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

(a)	Appearance: - Aggregate state - Colour	Cement is a finely ground solid inorganic material grey or white powder
(b)	Odour	weak
(c)	Odour threshold:	no odour threshold, odourless
(d)	pH-value:	11-13.5 (T = 20°C in water, water-solid ratio 1: 2)
(e)	Melting point/ freezing point:	> 1250°C
(f)	Initial boiling and boiling range:	not applicable as under normal atmospheric conditions, melting point > 1250°C
(g)	Flash point:	not applicable as it is not a liquid
(h)	Evaporation rate:	not applicable as it is not a liquid
(i)	Flammability (solid, gas):	not applicable as it is a solid which is non combustible
(j)	Lower explosive limits:	not applicable as it is not a flammable gas
(k)	Vapour pressure:	not applicable as melting point > 1250 °C
(l)	Vapour density:	not applicable as melting point > 1250 °C
(m)	Relative density:	2.75-3.20 g/cm ³ ; Apparent density: 0.9-1.5 g/cm ³
(n)	Solubility(ies):	in water (T = 20°C): slight (0.1-1.5 g/l)
(o)	Partition coefficient:	n-octanol/water: not applicable as it is an inorganic mixture
(p)	Auto-ignition temperature:	not applicable (no pyrophoricity – no organo-metallic, organo-metalloid or organo-phosphine bindings or of their derivatives, and no other pyrophoric constituent in the composition)
(q)	Decomposition temperature:	not applicable as no organic peroxides are present
(r)	Viscosity:	not applicable as it is not a liquid
(s)	Explosive properties:	not explosive or pyrotechnic. Not capable of producing gas or a self-sustaining exothermic chemical reaction.
(t)	Oxidising properties:	not applicable, the mixture has no oxidising properties

9.2 Other information

Not applicable

SECTION 10: Stability and reactivity

10.1 Reactivity

Cement is a hydraulic substance. When mixed with water, an intended reaction takes place. Cements will harden into a stable mass that is not reactive in normal environments.

10.2 Chemical stability

Cements are stable as long as they are properly stored dry (see Section 7). Contact with incompatible materials should be avoided. Wet cement is alkaline and incompatible with acids, ammonium salts, aluminium and other non-noble metals. Hydrogen can be produced in the process. Cement dissolves in hydrofluoric acid to produce corrosive silicon tetrafluoride gas. Contact with these incompatible materials should be avoided. Cement reacts with water to form calcium silicate hydrate, calcium aluminium hydrate and calcium hydroxide. Calcium silicates in cement may react with powerful oxidisers such as fluorides.

10.3 Possibility of hazardous reactions

No hazard under normal storage conditions.

10.4 Conditions to avoid

Moisture during storage may cause lump formation and loss of product quality.

10.5 Incompatible materials

Acids, ammonium salts, aluminium or other base metals.

10.6 Hazardous decomposition products

Cements will not decompose into any hazardous products.

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Hazard class	Cat.	Effect	Reference
Acute toxicity - dermal	-	Limit test, rabbit, 24 hours contact, 2,000 mg/kg body weight – no lethality. Based on the available data, the classification criteria are not met.	(4)
Acute toxicity – inhalation	-	Limit test, rat, with 5 g/m ³ , no acute toxicity. The study was conducted with Portland cement clinker, the main component of cement. Based on the available data, the classification criteria are not met.	(10)
Acute toxicity – oral	-	No indication of acute oral toxicity from studies on animals with cement kiln dust and cement dust. Based on the available data, the classification criteria are not met.	Literature survey
Skin corrosion/irritation	2	Cement has an irritant effect for the skin and mucous membranes. Dry cement in contact with moist skin or skin in contact with moist or wet cement may lead to different irritant and inflammatory reactions of the skin, e.g. redness and cracking. Prolonged contact in combination with mechanical abrasion may lead to serious skin damage.	(4) Human experience
Serious eye damage/ irritation	1	With in vitro studies, Portland cement clinker (main component of cement) showed different degrees of impact on the cornea. The calculated "irritation index" is 128. Direct contact with cement may cause corneal damage by mechanical stress, immediate or delayed irritation or inflammation. Direct contact with larger amounts of dry cement or splashes of wet cement may cause effects ranging from moderate eye irritation (e.g. conjunctivitis or blepharitis) to serious eye damage and blindness.	(11), (12) Human experience
Skin sensitisation	1 B	Some individuals may develop eczema upon exposure to wet cement. These are induced either by the pH value (irritant contact dermatitis) or by an immunological reaction to soluble Cr(VI) (allergic contact dermatitis).	(5), (13)
Respiratory sensitisation	-	There is no indication of sensitisation of the respiratory tract. Based on the available data, the classification criteria are not met.	(1)
Germ cell mutagenicity	-	No indication of germ cell mutagenicity. Based on the available data, the classification criteria are not met.	(14), (15)
Carcinogenicity	-	No causal association has been established between cement exposure and cancer. The epidemiological literature does not support the designation of exposure to cement as a suspected human carcinogen. Portland cement is not classifiable as a human carcinogen (according to ACGIH A4): "Agents that cause concern that they could be carcinogenic for humans but which cannot be assessed conclusively because of a lack of data. In vitro or animal studies do not provide indications of carcinogenicity that are sufficient to classify the agent with one of the other notations." Portland cement contains over 90% of Portland cement clinker. Based on the available data, the classification criteria are not met.	(1) (16)
Reproductive toxicity	-	Based on the available data, the classification criteria are not met.	No evidence based on human experience
Specific target organ toxicity – single exposure	3	Cement dust exposure may cause irritation of the respiratory system (throat, neck, lung). Coughing, sneezing and shortness of breath may occur following exposure in excess of workplace-related limit values. Overall, the pattern of evidence clearly indicates that occupational exposure to cement dust has produced deficits in respiratory function. However, evidence available at the present time is insufficient to establish with any confidence the dose-response relationship for these effects.	(1)
Specific target organ toxicity – repeated exposure	-	Coughing, shortness of breath and chronic obstructive changes in the respiratory tract may occur following long-term exposure exceeding workplace-related limit values. No chronic effects at low concentration have been observed. Based on the available data, the classification criteria are not met.	(17)
Aspiration hazard	-	Not applicable as cements are not used as an aerosol.	

Cement (standard cement) and Portland cement clinker have the same toxicological and eco-toxicological properties.

Medical conditions aggravated by exposure

Cement may aggravate existing respiratory tract disease(s) and/or medical conditions such as emphysema or asthma and/or existing skin and/ or eye conditions.

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SECTION 12: Ecological information

12.1 Toxicity

The product is not hazardous to the environment. Ecotoxicological tests with Portland cement on *Daphnia magna* (U.S. EPA, 1994a) [Reference (6)] and *Selenastrum Coli* (U.S. EPA, 1993) [Reference (7)] have shown little toxicological impact. Therefore LC50 and EC50 values could not be determined [Reference (8)]. There is no indication of sediment phase toxicity [Reference (9)]. The addition of large amounts of cement to water may, however, cause a rise in pH and may, therefore, be toxic to aquatic life under certain circumstances.

12.2 Persistence and degradability

Not relevant as cement is an inorganic mineral material. After hydration, remaining cement residues present no toxicity risks.

12.3 Bioaccumulative potential

Not relevant as cement is an inorganic mineral material. After hydration, remaining cement residues present no toxicity risks.

12.4 Mobility in soil

Not relevant as cement is an inorganic mineral material. After hydration, remaining cement residues present no toxicity risks.

12.5 Results of PBT and vPvB assessment

Not relevant as cement is an inorganic mineral material. After hydration, remaining cement residues present no toxicity risks.

12.6 Other adverse effects

Not relevant.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

It can be disposed of together with household waste in compliance with local regulations. Collect the product dry. Do not dispose of into drains or surface waters.

Recommendation

Agree on the correct waste code with the disposal company.

Product that has exceeded the shelf life of the reducing agent

(and when demonstrated that it contains more than 0.0002% soluble Chromium(VI)): the product shall no longer be used or placed on the market, other than for use in controlled closed and totally automated processes or if treated again with a chromate reducing agent.

Pick up dry unused product residue

as is. Mark the containers. Possibly reuse depending upon shelf life considerations and the requirement to avoid dust exposure. In case of disposal, harden with water and dispose according to "Product – after addition of water, hardened".

Wet products and product slurries

Allow wet products and product slurries to harden and avoid entry in sewage or waters. Dispose of as explained under "Product - after addition of water, hardened".

Products hardened after addition of water

Dispose of according to local legislation. Avoid entry into the sewage. Dispose of the hardened product as concrete waste and concrete sludge. Waste code according to LoW depending on the origin: as 17 01 01 (concrete) or 10 13 14: (waste concrete and concrete sludge)

Packaging

Completely empty the packaging and recycle. Otherwise, disposal of fully emptied packaging according to waste code LoW: 15 01 06 (mixed packaging according to material recycling).

SECTION 14: Transport information

With respect to transport regulations, the product is not hazardous (ADR, RID, ADN, IMDG, ICAO/IATA).

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

No special measures

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

Not applicable

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SECTION 15: Regulatory information

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

Cement is a mixture and it is therefore not subject to registration according to the EC Regulation 1907/2006 (REACH). Portland cement clinker is exempted from registration according to Art. 2.7(b) and Annex V.10 of the EC Regulation 1907/2006 (REACH).

EU regulations

Restrictions on use:

According to Annex XVII paragraph 47 of the EC Regulation 1907/2006, cement and cement-containing mixtures shall not be placed on the market, or used,

1. Cement and cement-containing mixtures shall not be placed on the market, or used, if they contain, when hydrated, more than 2 mg/kg (0.0002 %) soluble chromium VI of the total dry weight of 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 substances and mixtures, suppliers shall ensure before the placing on the market that the packaging of cement or cement-containing mixtures is visibly, legibly and indelibly marked with information on the packing date, as well as on the storage conditions and the storage period appropriate to maintaining the activity of the reducing agent and to keeping the content of soluble chromium VI below the limit indicated in paragraph 1.
3. By way of derogation, paragraphs 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.
4. The Standard for the examination of the content of water-soluble chromium VI of cement and cement-containing mixtures is approved by the European Committee for Standardization (CEN) as the standard method for documentation compliance with the requirements of section 1. The so-called "Good practice guides" which contain advice on safe handling practices can be found at: <http://www.nepsi.eu/good-practice-guide.aspx> These good practices have been adopted by cement manufacturers under the Social Dialogue "Agreement on Workers' Health Protection through the Good Handling and Use of Crystalline Silica and Products Containing it".

National regulations

When handling this product, the following legal provisions are i. a. to be complied with

VwVwS: Water hazard class: 1 - slightly hazardous for water (Self-assessment in accordance with VwVwS of 17 May 1999).

Hazardous Substances Ordinance (Gefahrstoffverordnung - GefStoffV)

Chemicals Prohibition Ordinance (Chemikalienverbotsverordnung - ChemVerbotsV)

GISCODE: ZP 1 (cement-based product, low in chrome)

TRGS 900 Work-place related limit values

TRGS 510 storage of hazardous substances in portable containers

TRGS 402 Identification and assessment of the risks from activities involving hazardous substances: Inhalation exposure

TRGS 500 precautions

Ordinance on the European Waste Catalogue (European List of Waste LoW)

Regulation on occupational health care (Verordnung zur arbeitsmedizinischen Vorsorge - ArbMedVV)

Basic principles of the Institution for Statutory Accident Insurance and Prevention on occupational medical examinations

15.2 Chemical safety assessment

A safety assessment has not been carried out.

SECTION 16: Other information

16.1 Changes to the previous version

New MSDS

16.2 Abbreviations and acronyms

ACGIH	American Conference of Industrial Hygienists
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ArbMedVV	Verordnung zur arbeitsmedizinischen Vorsorge (Regulation on occupational health care)
BG	Berufsgenossenschaft (Institution for Statutory Accident Insurance and Prevention)
CAS	Chemical Abstracts Service
CLP	Classification, labelling and packaging (Regulation (EC) No. 1272/2008)
ECHA	European Chemicals Agency
EC50	Half maximal effective concentration
EPA	Type of high efficiency air filter
GefStoffV	Gefahrstoffverordnung (Hazardous Substances Ordinance)
HEPA	Type of high efficiency air filter
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	International agreement on the Maritime transport of Dangerous Goods
LC50	Median lethal dose
MEASE	Metals estimation and assessment of substance exposure
PBT	Persistent, bio-accumulative and toxic
PROC	Process category
REACH	Registration, Evaluation and Authorisation of Chemicals (Regulation (EC) 1907/2006)
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STOT	Specific target organ toxicity
TRGS	Technische Regeln für Gefahrstoffe (Technical rules for dangerous substances)

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VCI Verband der chemischen Industrie e.V. (Registered association of the chemical industry)
vPvB Very persistent, very bioaccumulative
VwVwS Verwaltungsvorschrift wassergefährdende Stoffe (Administrative Regulation on the Classification of Substances hazardous to Waters into Water Hazard Classes)

16.3 Relevant risk phrases (R-phrases and/or H-statements) (number and full text)

H317 May cause an allergic skin reaction.
R43 May cause sensitisation by skin contact.
EUH203 Contains Chromium(VI). May cause an allergic reaction.

16.4 Literature references and sources of data

With regard to the sources of key data and technical information, we refer, among others, to the information provided by the raw material supplier

- (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“*, Ausgabe: Januar 2006 BArBl Heft 1/2006 S. 41-55 zuletzt geändert und ergänzt: GMBL 2014 S. 271-274 v. 2.4.2014 [Nr. 12]
- (3) MEASE 1.02.01 Exposure assessment tool for metals and inorganic substances, EBRC Consulting GmbH für Eurometaux, 2010: <http://www.ebrc.de/tools/mease.php>
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16.5 Methods in accordance with Article 9 of Regulation (EC) No. 1272/2008 to evaluate information for classification purposes

The evaluation was conducted in accordance with Article 6, paragraph 5 and Annex I of Regulation (EC) no. 1272/2008.

16.6 Training advice workers

In addition to health, safety and environmental training programmes for their workers, companies must ensure that their employees read, understand and apply the requirements of this SDS.

16.7 Disclaimer

The information on this data sheet describes the safety requirements of our product and is based on our current level of knowledge. It implies no guarantee of the product properties and does not justify a contractual legal relationship. This safety data sheet serves the user as reference information. Although this safety data sheet has been drawn up with great care, no guarantee for data accuracy, and no liability for the consequences of printing, typeset or transcription errors can be accepted. The existing laws, regulations and rule systems, including those not mentioned in this data sheet, must be complied with by the recipient of our products under their own responsibility.