Baumit MultiContact MC 55 W

Safety Data Sheet

As per (EU) no.1907/2006 (REACH)

Revised on: 02/12/2014

1.1	**Product Identifier**	
1.0	**Identification of the material or the mixture and the company**	
	Commercial name:	**Baumit Multicontact MC 55 W**
1.2	**Relevant identified applications of the material or mixture and applications which are not recommended**	
	Use of the material/mixture:	Dry mortar to mix with water and then use adhesive mortar for renewing of facade surfaces, adhesive and reinforcing mortar for the interior and exterior. Any other use is not advised.
1.3	**Details on the supplier which provides the safety data sheet**	
	Manufacturer:	Baumit GmbH Reckenberg 12 D-87541 Bad Hindelang Tel. + 49 8324 921 1025 Fax + 49 8324 921 1029 email (expert person): sdb@baumit.de
1.4	**Emergency telephone number:**	
		Poison Information Centre at the First University Hospital, Währinger Gürtel 18-20, 1090 Vienna: + 43/1/406 43 43

2.0	**Possible hazards**	
2.1	**Classification of the material/mixture:**	
	Classified as per (EU) Directive no. 1272/2008	Severe eye damage, hazard category 1 (eye dam. 1) Severe skin irritation, hazard category 2 (Skin Irrit. 2) H 315 Causes skin irritation. H 318 Causes severe eye damage. H 335 Can irritate the respiratory tract.
	As per 1999/45/EU Directive	Xi, irritating R 37/38 Irritates the skin and eyes. R 41 Hazard of severe eye damage.
2.2	**Identification items**	
		Identification as per (EU) Directive no. 1272/2008
	Hazard pictogram:	 GHS05  GHS07
	Signal word:	Hazard

	Hazard instructions:	
	H 315	Causes skin irritation.
	H 318	Causes severe eye damage.
	H 335	Can irritate the respiratory tract.
	Safety instructions:	
	P 102	May not be within the reach of children.
	P 271	Only use outdoors or in well-ventilated rooms.
	P 280	Wear protective gloves/protective clothing/eye protection/face protection.
	P 305 + P 351 + P 338 + P 310	IF THERE IS EYE CONTACT: A few minutes' long. Rinse cautiously with water. Remove existing contact lenses if possible. Rinse further. Call a poison information centre/physician.
	P 302 + P 352 + P 332 + P 313	IF THERE IS EYE CONTACT: Wash with lots of water and soap If the skin is irritated: Consult with a physician. Involve a physician.
	P 362	Pull off contaminated clothing and wash before wearing again.
	P 501	Dispose of contents/container as per national rules for waste recycling.
	Further information:	Can be retained for at least 3 months from manufacturing date with proper, dry storage, low chromate.
2.3	**Other hazards**	Any dust arising from the dry mixture can irritate the respiratory tract. Repeated inhalation of large amounts of dust increases the risk of lung disease. The product creates a strong alkaline reaction with moisture. If the product comes in contact with water, it can lead to severe skin damage with long contact (such as kneeling in moist mortar). When using white Portland cement, the contents of sensitising Chrome (VI) is under 0.0002% in the cement portion of the ready-to-use product. Therefore, there is no danger of sensitisation to chromate.
	Results of the PBT and vPvP assessment	The criteria for the identification of persistent, bioaccumulatable and toxic materials (PBT) and very persistent and very bioaccumulatable materials (vPvB) as per Appendix XIII of (EU) Directive no. 1907/2006 are not fulfilled.

3.0	**Compound/Information about components**								
3.1	**Materials**								
	Not applicable, as this product is a mixture (see Section 3.2)								
3.2	**Mixtures**								
	Mixture of white Portland cement as per Directive 2003/53/EU, calcium hydrate, aggregates and additives.								
	Table of hazardous contents:								
	Description	EU no.	CAS no.	Registration number	Contents [M.-%]	Classification as per 67/548/EEC Directive		Classified as per (EU) Directive no. 1272/2008	
	White Portland cement clinker	266-043-4	65997-15-1	deleted	<20	Xi irritating	R37/38 R41	Skin Irrit. 2 Eye Dam.1 STOT SE 3	H315 H318 H335
	Calcium dihydroxide	215-137-3	1305-62-0	01-2119475151-45-xxxx	<10	Xi irritating	R37/38 R41	Skin Irrit. 2 Eye Dam.1 STOT SE 3	H315 H318 H335
	The complete text of the H and R sentences can be found in Section 16.								

4.0	**First aid measures**

4.1	**Description of first aid measures**	
	General instructions:	No special personal protective equipment is needed for first aid assistants. First aid assistance should, however, avoid contact with moist mortar.
	Inhaling:	Remove dust sources and provide fresh air or move the victim to fresh air. If there are symptoms such as malaise, coughing or persistent irritation, seek the advice of a physician.
	Skin contact:	Wash the affected skin with a lot of water in order to remove all product remnants. Take off and remove wet gloves, clothing, shoes, watch, etc. Thoroughly wash or clean clothing, shoes, watches, etc. before reuse. Consult a doctor if there are skin symptoms.
	Eye contact:	Do not rub the eyes dry, as mechanical pressure could cause additional eye damage. If relevant, remove contact lenses and rinse the eyes with open eyelids under flowing water for at least 20 minutes in order to remove all particles. If possible, use isotonic eye rinse solution (such as 0.9% NaCl). Always consult an occupational physician or ophthalmologist.
	Swallowing:	Do NOT induce vomiting. If conscious, rinse the mouth with water and drink a lot of water. Consult with a physician or a poison control centre.
4.2	**Most important acute or delayed symptoms and effects**	
	Eyes:	Eye contact with dry or moist product can cause severe and possibly permanent damage.
	Skin:	The product can also have an irritating effect on moist skin even in the dry state (as a consequence of perspiring or relative humidity). Contact with moist skin can cause skin irritation, dermatitis or other severe skin damage.
	Additional advice	Cement can worsen existing diseases of the skin, eyes or respiratory tract, such as with emphysema or asthma.
4.3	**Advice for immediately doctor assistance or special treatment.**	
		If a physician is consulted, this Safety Data Sheet should be presented to him, if possible.

5.0	**Firefighting measures**	
5.1	**Extinguishing material:**	The preparation is not flammable either as delivered or when mixed. Extinguishing material and firefighting must be adapted to the environment of the fire.
5.2	**Special hazards from the mixture:**	None. The product is neither explosive nor flammable, and also has no fire-promoting effect with other materials.
5.3	**Instructions for firefighting:**	No special measures needed for firefighting. Do not drain the remains into the sewers. Cool closed containers near the fire in water.

6.0	**Measures for unintended release**	
6.1	**Personal precautionary measures:**	
6.1.1	**Staff not trained for emergencies:**	Wear protective equipment as described in Section 8. Avoid dust. Provide sufficient ventilation. Follow the instructions for safe handling as described in Section 7. Emergency plans are not required.
6.2	**Deployment forces:**	Protective equipment as described in Section 8.2.2 is required if there is high dust exposure.
6.3	**Environmental protection measures:**	Keep the mixture dry and covered in order to prevent dust. Do not drain into the sewers, surface water or groundwater (increases pH). If rivers, lakes or sewage lines are contaminated, inform the responsible authorities as per local regulations.

6.4	**Methods and materials for containment and cleaning:**	Protect against spilled material with a tarpaulin against moving, take dry, and use again if possible. Note the wind direction and height when stacking (such as with shovels) should be as low as possible. To clean, use at least industrial vacuum cleaners/de-dusters for dust class M (DIN EN 60335-2-69). Do not sweep dry. Never use compressed air for cleaning. If dust arises during dry cleaning, one must wear personal protective equipment. Inhaling any dust and contact with the eyes and skin must be avoided. Let the mixed mortar harden, and remove (see Section 13.1).
6.5	**Reference to other sections:**	Sections 8 and 13.

7.0	**Handling and storage**	
7.1	**Protective measures for safe handling:**	Do not eat, drink or smoke in areas which will be worked. Avoid dust. When using bags and open mixers, fill first with water, then carefully pour in the dry product. Keep the height low. Set the stirrer on 'slow'. Do not press together empty bags, such as in a larger bag. Avoid contact with the eyes and skin with personal protective equipment as per Section 8.2.2. Ensure sufficient ventilation; if needed, use respiratory protection as per Section 8.2.2. Do not kneel in fresh product when handling. For machine handling (such as with cleaning machines or continuous mixers), dust should be minimised through careful laying, opening end emptying the bags as well as the use of special additional equipment. For packages from 10 kg: Minimise the lifting and carrying of packages by using mechanical assistance.
7.2	**Conditions for safe storage in regards to incompatibility:**	Store dry, not together with acids, and separated from foods. Avoid entry of water and moisture. Always store in original packages. The effect of the chromate reducer can be reduced with improper storage (entry of moisture) or exceeding the maximum storage time (see Section 7.1).
7.3	**Specific final uses:**	This product is classified under GISCODE ZP 1 (cement-containing product, low chromate). Further information on safe handling, protective means and behavioural rules can be found in GISCODE ZP 1. It is available as a part of the hazardous materials information of the Construction Professions Association at www.gisbau.de. Further information on safe handling are contained in the hazard assessment delivered with the product as per § 6 para. 7 of the Regulation to Protect against Hazardous Materials (Gefahrstoffverordnung – GefStoffV).

8.0	**Limitation and monitoring exposure / personal protective equipment**							
8.1	**Parameters to monitor:**							
	Components of the space-related monitoring limit value:	**CAS no.**	**Type of assess - Value**	**Assessment value [mg/m³]**	**Peak limit [mg/m³]**		**Origin**	**Monitoring procedure, such as**
	General dust limit value	deleted	AGW	1.25 (A) 8h 10 (E)	2 (II) 15 min	2.5 A) 20 (E)	TRGS 9001	TRGS 402
	Calcium dihydroxide	1305-62-0	AGW	8h 1 (E)	2 (I) 15min	2 (E)	TRGS 9001	TRGS 402
	1 Reference (2) (A) = alveoli penetrating dust fraction (E) = inhalable dust fraction							
8.2	**Limitation and monitoring exposure:**							
8.2.2	**Suitable technical control equipment:**	Closed systems (such as silos with conveyors), local suction or other technical control devices, such as polishing machines or continuous mixers with special additional equipment to capture dust should be used.						

	Individual protective measures, such as equipment:	Do not eat, drink or smoke when working. Before breaks and at the end of work wash the hands and face and shower if necessary, in order to remove remaining dust. Avoid contact with the eyes and skin. Skin Use skin care materials. Wet gloves, clothing, shoes, watches, etc. should be taken off immediately or removed. Clothes, shoes, watches, etc. should be washed/cleaned thoroughly before reuse. General information on the use of protective clothing can be found in the professional organization rules BGR 189.
	Face / eye protection:	If there is dust or a spray hazard, wear sealed protective goggles as per EN 166 (provide eye washes). General information on the use of protective clothing can be found in the professional organization rules BGR 192.
	Skin protection:	Wear waterproof, wear- and alkali-resistant gloves with CE mark. Leather gloves are not suitable due to their water permeability, and could release chrome-containing compounds. Investigations have shown that nitrile-soaked cotton gloves (layer thickness about 0.15 mm) offer adequate protection over a 480-minute period. Change wet gloves. Provide gloves for changing. General information on the use of protective clothing can be found in the professional organization rules BGR 195. Wear closed, long-armed protective clothing and sealed shoes. Protective clothing should also be waterproof if contact with fresh mortar cannot be avoided. Ensure that no fresh mortar penetrates from above into the shoes or boots. Note the skin protection plan. In particular, use skin care products after work.
	Respiratory protection:	If there is a danger that the exposition limit values could be exceeded, such as with open fiddling with the powder, dry product, one must wear a suitable respiratory protective mask. **Mixing and refilling dry mortar into open systems, such as mixing by hand, entering bagged goods in polishers:** Ensure adherence to working limit values through effective dust measures, such as local vacuum equipment. If this is not possible, particle-filtering half-masks (FFP2 type, tested as per EN 149) must be used. **Manual handling of ready-to-use mortar:** No respiratory protection required. **Machine handling of mortar:** No respiratory protection required. General information on the use of protective clothing can be found in the professional organization rules BGR/GUV R 190. Employees must be trained in the correct use of personal protective equipment in order to ensure the required effectiveness.
8.2.3	**Limitation and monitoring environmental exposure:**	
		Avoid release into the environment. Use the remaining amounts, or properly dispose of them.
	Air:	Adhere to the dust emission limit values as per the Technical Instructions for Keeping the Air Clean (TA Luft).
	Water:	Do not Ecological-toxicological effects can occur with a pH greater than 9. One must observe wastewater and groundwater regulations.
	Soil:	Adhere to the Bundes-Bodenschutzgesetzes [Federal Soil Protection Law] (BBodSchG) and Bundes-Bodenschutz- und Altlastenverordnung [Federal Soil Protection and Contamination Regulation] (BBodSchV). No special monitoring measures necessary.
9.0	**Physical and chemical properties**	

9.1	**Information on the basic physical and chemical properties:**	
a)	**Appearance:** **Aggregate status:** **Colour:**	Power Solid Grey
b)	**Odour:**	Odourless
c)	**Odour threshold:**	None, as it is odourless
d)	**pH value (20 °C):**	At 20 °C, mixed ready-to-use in water: 11.5-13.5
e)	**Melting / freezing point:**	Not applicable
f)	**Boiling point, boiling range:**	Not applicable
g)	**Flashpoint:**	Not applicable
h)	**Vapour speed:**	Not applicable
i)	**Flammability:**	Not applicable
j)	**Upper/lower ignition or explosion limits**	Not applicable
k)	**Vapour pressure:**	Not applicable
l)	**Vapour density:**	Not applicable
m)	**Relative density:**	Not applicable
n)	**Bulk density:**	1100-1300 kg/m³ (20 °C)
o)	**Solubility in water:**	low (at 20 °C: <2g/l related to calcium dihydroxide)
p)	**Distribution coefficient n-octanol/water:**	Not applicable
q)	**Self-ignition temperature:**	Not self-igniting
r)	**Decomposition temperature**	Not applicable.
s)	**Viscosity**	Not applicable
t)	**Explosive properties:**	Non-explosive
u)	**Oxidising properties**	Non-oxidising
9.2	**Other information:**	None

10.0	**Stability and reactivity**	
10.1	**Reactivity:**	Reacts in an alkaline manner in water In contact with water, an intended reaction takes place. When the product is hardened and forms a solid mass, it no longer reacts with its environment.
10.2	**Chemical stability:**	The product is stable (assuming proper and dry storage).
10.3	**Possible hazardous reactions:**	No hazardous reactions (see also Section 10.5).
10.4	**Conditions to avoid:**	Avoid water entry and moisture during storage (the mixture reacts in an alkaline manner with humidity and hardens).
10.5	**Incompatible materials:**	Reacts exothermically with acids: the moist product is alkaline and reacts with acids, ammonium salts and base metals such as aluminium, zinc and brass. Hydrogen is produced when reacting with base metals.
10.6	**Hazardous decomposition products:**	No hazardous decomposition products are known for this mixture.

11.0	**Toxicological information**

Toxicity	The mixture was not investigated for toxicology in its mixed state. Information about toxicological effects results from the relevant information for cement and calcium dihydroxide. Portland cement (normal cement) and Portland cement clinker, and have the same toxicological and ecological-toxicological properties.	
Acute toxicity	Calcium hydrate and cement are classified as not acutely toxic.	
	Portland cement	**Calcium dihydroxide**
	Dermal	
	Limit test, rabbits, 24-hour exposure, 2000 mg/kg body weight - no lethality. [Reference (4)] The classification criteria are not fulfilled in light of the data presented.	LD50 > 2500 mg/kg body weight (calcium dihydroxide, OECD 402, rabbits)
	Inhalatio	
	Limit test, rats, at 5 g/m³, no acute toxicity Studies were performed with Portland cement clinker, the main cement component. [Reference (10)] The classification criteria are not fulfilled in light of the data presented.	No data available.
	Oral	
	No acute oral toxicity was found in animal studies with cement kiln dust. The classification criteria are not fulfilled in light of the data presented.	LD50 > 2000 mg/kg body weight (OECD 425, rats)

Irritation to the skin	Cement has an effect which irritates the skin and mucous membranes. Dry cement in contact with moist skin or skin in contact with moist or wet cement can lead to various irritating and inflammatory skin reactions, such as reddening and forming cracks. Constant contact in connection with mechanical friction can lead to severe skin damage. [Reference (4)]	Calcium dihydroxide irritates the skin (in vivo, rabbits). Calcium dihydroxide is classified as skin irritating as the result of studies (H315- Causes skin irritation, R38 - irritates the skin).
Severe eye damage/irritation	Portland cement clinker (the main component in cement) showed varied severe effects on the cornea in an in-vitro test. The calculated irritation index is 128. Direct contact with cement can lead to corneal damage, on the one hand due to mechanical penetration, and on the other due to immediate or later irritation or inflammation. Direct contact with larger amounts of dry cement or wet cement spray can have effects which range from moderate eye irritation (such as conjunctivitis or lid edge infection) to severe eye damage and becoming blind. [Reference (11),(12)]	Studies have shown (in-vivo, rabbits) that calcium dihydroxide can cause severe eye damage (H318 - causes severe eye damage, R41 - Danger of severe eye damage).
Sensitisation of the respiratory tract	There is no evidence of sensitisation of the respiratory tract. The classification criteria are not fulfilled in light of the data presented. [Reference (1)]	Calcium dihydroxide is not classified as skin-sensitising due to its effect (pH change) and the significance of calcium in human nutrition.

		In some individuals, contact with wet cement can lead to skin eczema. This is dissolved due to the high pH (irritating contact dermatitis). [Reference (5)]	
	Nuclear mutagenicity	No evidence of nuclear mutagenicity. The classification criteria are not fulfilled in light of the data presented. [Reference (13),(14)]	Genotoxic potential from calcium dihydroxide is not known (bacterial reverse mutation assay (Ames test, OECD, 471) negative).
	Carcinogenicity	No causal connection has been found between cement and cancer. Epidemiological studies have found no conclusions about a connection between exposure to cement and cancer. [Reference (1)] Portland cement is not classified as a human carcinogen as per ACGIH A4. *Materials which cannot be finally assessed in regards to human carcinogenicity due to inadequate data. In-vitro tests and animal studies have shown no sufficient evidence of carcinogenicity in order to assign another classification to this material." [Reference (15)] The classification criteria are not fulfilled in light of the data presented.	Calcium (administered as Ca lactate) is non-carcinogenic (results of experiments, rats). There is no carcinogenic risk due to the pH effect of calcium dihydroxide (epidemiological data for humans available).
	Reproductive toxicity	The classification criteria are not fulfilled in light of the data presented.	Calcium (administered as Ca carbonate) is not toxic to reproduction (results of experiments, mouse). There is no evidence of a risk to reproduction due to the pH effect (epidemiological data for humans available).
	Specific target organ toxicity with single exposure	Cement dust exposure can lead to irritation of the breathing organs (throat, neck, lungs). Coughing, sneezing and shortness of breath can be the consequences if exposure is over the workplace borderline. [Reference (1)] Work-related exposure to cement dust can lead to impacts on breathing. In any case, there is currently insufficient knowledge in order to determine a dose-effect relationship.	Calcium dihydroxide irritates the respiratory tract (STOT SE 3 H335 - Can irritate the respiratory tract, R37 - Irritates the respiratory tract).
	Specific target organ toxicity with single exposure	Long-term exposure to cement dust which enters the lungs which is above workplace limits can lead to coughing, shortness of breath and chronic, obstructive changes in the respiratory tract. No chronic effects have been observed at low concentrations. [Reference (16)] The classification criteria are not fulfilled in light of the data presented.	No relevant classification
	Aspiration hazard	Not applicable, as cement is not present in aerosol form.	No relevant classification

12.0	**Environmental information**
12.1	**Toxicity**

	Cement:	Ecological-toxicological investigations with Portland cement on Daphnia magna (U. S. EPA, 1994a) [Reference (6)] and Selenastrum coli (U. S. EPA, 1993) [Reference (7_] have shown only a slight toxic effect. Thus the LC50 and EC 50 values cannot be determined [Reference (8)]. Also no toxic effects could be determined for sediment [Reference (9)]. The release of larger volumes of cement in water can, however, lead to an increase in pH, and therefore be toxic to aquatic organisms under special circumstances.	
	Calcium dihydroxide:	Acute/long-term fish toxicity	LC50 (96h) for fresh water fish: 50.6 mg/l LC50 (96h) for salt water fish: 457 mg/l
		Acute/long-term toxicity for invertebrate water organisms	EC50 (48h) for invertebrate fresh water organisms. 49.1 mg/l LC50 (96h) for invertebrate salt water organisms. 158 mg/l
		Acute/long-term toxicity for water plants	EC50 (72h) for fresh water algae: 184.57 mg/l NOEC (72h) for fresh water algae: 48 mg/l
		Acute/long-term toxicity for micro-organisms, such as bacteria	Calcium dihydroxide at higher concentrations causes an increase in temperature and pH
		Chemical toxicity to water organisms	NOEC (14d) for invertebrate seawater organisms: 32 mg/l
		Toxicity for soil organisms	EC10/LC10 or NOEC for soil macro-organisms: 2000 mg/kg soil dw EC10/LC10 or NOEC for soil micro-organisms: 12000 mg/kg soil dw
		Plant toxicity	NOEC (21d) for plants: 1080 mg/kg
		General effect	Acute pH effect. Although calcium dihydroxide can be used to neutralise over-acidified water, exceeding 1 g/litre of water can damage water organisms. A pH of > 12 is quickly reduced due to dilution and carbonation.
12.2	**Persistence and degradability:**	Not applicable	
12.3	**Bioaccumulation potential:**	No information available	
12.4	**Soil mobility:**	No information available	
12.5	**Results of the PBT and vPvP assessment:**	No information available	
12.6	**Other hazardous effects:**	The mixture contains Portland cement clinker and calcium dihydroxide. The release of larger volumes in water leads to an increase in pH. The pH sinks quickly through dilution (inorganic-mineral construction material).	

13.	**Instructions on disposal**
	Waste treatment procedures:

	Unused product remnants:	May not be disposed together with house rubbish. Do not drain the remains into the sewers. Take up dry, store in labelled containers and, reuse or mix the remnants with water while avoiding skin contact and dust exposure, and after hardening, dispose in accordance with local and official regulations as possible, with consideration of the maximum storage time.
	Wet product and product muds:	Wet product and product muds should be left to harden, and not put into the drains or waters. Dispose as described under “hardened product.”
	Hardened product:	Dispose of hardened product in observance of local official provisions. Do not drain the remains into the sewers. Disposal of the hardened product as per the AVV such as 17 01 01 concrete rubble 17 09 04 (mixed construction and rubble waste, with exception of that which falls under 17 09 01, 17 09 02 and 17 09 03).
	Packaging:	Completely empty the packaging and put into recycling. Instead of disposing of completely emptied packages, as per the type of packaging in accordance with AVV for example 15 01 01, packaging made of paper and cardboard, 15 01 05, compound packaging)
	AVV waste key:	The listed waste numbers are only examples. The actual waste number depends upon the origin and composition of the waste. Assigning a waste key must be done in concert with the responsible authorities in accordance with national and regional provisions.

14.0	**Transport instructions**	
No hazardous goods as per the regulations for the transport of dangerous goods ADR/RID, ADN, IMDG Code, ICAO-TI, IATA-DGR.		
14.1	**UN number:**	Not applicable.
14.2	**Proper UN shipping name:**	Not applicable.
14.3	**Transport hazard class:**	Not applicable.
14.4	**Packaging group:**	Not applicable.
14.5	**Environmental hazards:**	Not applicable.
14.6	**Special precautionary measures for the user:**	Not applicable.
14.7	**Bulk goods transport as per Appendix II of MARPOL Treaty 73/78 and as per the IBC code:**	Not applicable.

15.0	**Information on legislation**	
15.1	**Regulations for safety, health and environmental protection/specific legislation for the mixture**	
	Relevant regulations, rules and laws:	Regulation for protection from hazardous materials (GrfStoffV) Prohibited chemicals regulation (ChemVerbotsV) Regulation for the European Waste Index (AVV) Federal Soil Protection Law (BBodSchG) Federal Soil Protection and Contamination Regulation (BBodSchV) Technical Directions for Keeping the Air Clean (TA Luft)
	Water hazard class (WGK):	WGK 1 (slight water hazard), calcium dihydroxide, ID no. 320 as per VwVwS
	Other regulations, limitations and prohibitions:	Observe the REACH Directive (EU) no. 1907/2006, Appendix XVII, no. 47 (chrome VI compounds).
	Relevant TRGS:	TRGS 200 (classification and identification of materials, preparations and products) TRGS 500 (protective measures) TRGS 559 (mineral dust)

		TRGS 510 (Storing hazardous material in containers which can be moved) TRGS 900 (workplace limit values)
	Relevant professional association rules (BGR) for Statutory Accident Insurance (GUV):	BGR/GUV R 190 (use of respiratory protection devices) BGR 192 (use of eye and face protection) BGR 189 (use of protective clothing) BGR 195 (use of protective gloves)
	GISCODE:	ZP1 Products containing cement, low-chrome
	VCI storage class:	**Storage class 13 (non-flammable solids) as per TRGS 510**
15.2	**Material safety assessment:**	
	No material safety assessment was performed.	

16.0	**Other information**	
16.1	**Changes as compared to the previous version of the safety data sheet**	
	Correction of the P sentence (new P304+P340), revised general dust limit value	
16.2	**Abbreviations and acronyms**	
	ACGIH	American Conference of Industrial Hygienists
	ADN	Accord européen relativ au transport international des marchandises dangereuses par voie de navigation intérieure
	ADR/RID	European Agreements on the transport of Dangerous goods by Road/Railway
	AGW	Workplace limit value
	AVV	Regulation for the European Waste Index (AVV)
	CAS	Chemical Abstracts Service
	DFG	German Research Association
	DIN	Deutsches Institut für Normung e.V.
	DNEL	Derived No-Effect Level Determine amount of exposure without impacting Effective concentration at 10% mortality rate
	EC10	Half maximal effective concentration
	EC50	Half maximal effective concentration
	EN	European standard
	GHS	Globally Harmonized System of Classification, Labelling and Packaging of Chemicals
	IBC Code	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
	IATA-DGR	International Air Transport Association-Dangerous Goods Regulations
	ICAO-TI	International Civil Aviation Organisation - Technical instructions for the safe transport of dangerous goods by air.
	IFA	Institute for Worker Protection of German Statutory Accident Insurance
	IMDG Code	International agreement on the Maritime transport of Dangerous Goods

LC10	Lethal concentration at 10% mortality rate
LC50	Median lethal concentration
LD10	Lethal dose at 10% mortality rate
LD50	Mean lethal dose
MARPOL	Marine pollution (International Convention for the Prevention of Pollution from Ships)
MEASE	Metals estimation and assessment of substance exposure
NaCl	Sodium chloride
NOEC	No observed effect concentration Highest tested concentration without observed damaging effects,
OECD	Organisation for Economic Cooperation and Development
OSHA	Occupational Safety & Health Administration
PBT	Persistent, bio-accumulative and toxic
REACH	Registration, Evaluation and Authorisation of Chemicals (Directive (EU) 1907/2006)
RID	Règlement international concernant le transport des marchandises dangereuses par chemin de fer International regulation for transporting hazardous goods by rail
STOT	Specific target organ toxicity
TRGS	Technische Regeln für Gefahrstoffe [Technical Rules for Hazardous Materials]
U.S.EPA	Chemical Industry Association e.V.
VCI	Verband der chemischen Industrie e.V. [German Chemical Association]
vPvB	Very persistent, very bioaccumulative
VwVwS	Verwaltungsvorschrift wassergefährdende Stoffe [Administrative Guidelines for Material Hazards to Water]

17.0 Literature information and data sources

(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) TRGS 900, Technical rules for hazardous materials, "Workplace Limit Values," 2014

(3) MEASE 1.02.01 Exposure assessment tool for metals and inorganic substances, EBRC Consulting GmbH für Eurometaux, 2010: http://www.ebrc.de/ebrc/ebrc-mease.php.

(4) Observations on the effects of skin irritation caused by cement, Kietzman et al, Derma tosen, 47, 5, 184-189 (1999).

(5) Epidemiological assessment of the occurrence of allergic dermatitis in workers in the construction industry related to the content of Cr (VI) in cement, NIOH, Page 11, 2003.

(6) U.S. EPA, Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, 3rd ed. EPA/600/7-91/002, Environmental Monitoring and Support Laboratory, U.S. EPA, Cincinnati, OH (1994a).

(7) U.S. EPA, Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, 4th ed. EPA/600/4-90/027F, Environmental Monitoring and Support Laboratory, U.S. EPA, Cincinnati, OH (1993).

(8) Environmental Impact of Construction and Repair Materials on Surface and Ground Waters. Summary of Methodology, Laboratory Results, and Model Development. NCHRP report 448, National Academy Press, Washington, D.C., 2001.

(9) Final report Sediment Phase Toxicity Test Results with Corophium volutator for Portland clinker prepared for Norcem A.S. by AnalyCen Ecotox AS, 2007.

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18.0 Methods as per Article 9 of the Directive (EU) 1272/2008 to assess information for purposes of classification

	The assessment follows Article 6, para. 5 and Appendix I of the Directive (EU) no. 1272/2008

19.0	**Texts of the R sentences, hazard instructions, safety advice and safety instructions, description of special hazards (R sentences)**	
	R 37/38	Irritates the respiratory organs and eyes.
	R 41	Hazard of severe eye damage.

20.0	**Safety advice (S sentences)**	
	S 2	May not be within the reach of children.
	S 22	Do not inhale dust.
	S 24/25	Avoid contact with the eyes and skin.
	S 26	If it touches the eyes, immediately and thoroughly rinse with water and consult a physician.
	S 36/37/39	Wear suitable protective clothing, gloves and goggles/face protection when working.
	S 46	If swallowed, seek medical advice immediately, and show packaging or label.

21.0	**Safety instructions (P instructions)**	
	P 102	May not be within the reach of children.
	P 261	Avoid inhaling dust.
	P 271	Only use outdoors or in well-ventilated rooms.
	P 280	Wear protective gloves/protective clothing/eye protection/face protection.
	P 305 + P 351 + P 338 + P 310	IF THERE IS EYE CONTACT: Rinse carefully with water for a few minutes. Remove existing contact lenses if possible. Continue rinsing. Call a poison information centre/physician.
	P 302 + P 352 + P 332 + P 313	IF THERE IS EYE CONTACT: Wash with lots of water and soap. If there is skin irritation: Consult with a physician.
	P 362	Pull off contaminated clothing and wash before wearing again.
	P 501	Dispose of contents/container as per national rules for waste recycling.

22.0	**Hazard instructions (H instructions)**	
	H 315	Causes skin irritation. Causes severe
	H 317	Can cause allergic skin reactions.
	H 318	Causes severe eye damage.
	H 335	Can irritate the respiratory tract.

Training instructions

Additional training beyond the prescribed instruction in working with hazardous materials is not required.

Exclusion clause

The information in this safety data sheet describes the safety requirements for our product, and relies on the current status of our knowledge. It provides no assurance of product characteristics. See also the technical leaflet or the product data sheet for more information.

The users of our products are responsible on their own to observe existing laws, regulations and rules, even those not named in this data sheet.

Department publishing the data sheet:

Department: Quality Assurance