according to Regulation (EC) No 1907/2006 (REACH) as amended

Dry cement mortar mixes HELUZ

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

1.1. Product identifier Dry cement mortar mixes HELUZ

Substance / mixture Mixture

Other mixture names Cement mortars HELUZ - all names (see Appendix SDS)

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

mixture's intended use Use in accordance with the Product Data Sheet.

Disapproved uses of mixture The product may not be used in any way other than those

specified in section 1.2.

1.3. Details of the supplier of the safety data sheet

Manufacturer

Name or trade name LB Cemix s.r.o.

Address Tovární 36, Borovany, 37312

Czech Republic

Identification number (ID)27994961Phone+420387925275E-mailinfo@cemix.cz

Competent person responsible for the safety data sheet

Name LB Cemix s.r.o. E-mail info@cemix.cz

1.4. Emergency telephone number

National Health Service (NHS) 111

National poisoning information centre Scotland, NHS 24: 111

SECTION 2: Hazards identification

2.1. Substance or mixture classification

Classification of the mixture in accordance with Regulation (EC) No 1272/2008

The mixture is classified as dangerous.

Skin Irrit. 2, H315 Skin Sens. 1B, H317 Eye Dam. 1, H318 STOT SE 3, H335

Full text of all classifications and hazard statements is given in the section 16.

Most serious adverse physico-chemical effects

Increased dust concentrations can lead to mechanical irritation of the airways and eyes. Damage to aluminium and other non-ferrous metals may occur.

Most serious adverse effects on human health and the environment

Causes serious eye damage. May cause an allergic skin reaction. Causes skin irritation. May cause respiratory irritation. When contacting wet cement, fresh concrete or mortar with the skin, irritation, dermatitis or corrosion may occur (a strongly alkaline solution is formed upon reaction with water). Due to the Cr (VI) content, some people may also cause an allergic reaction.

2.2. Label elements

Hazard pictogram



Signal word

Danger

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Hazardous substances

cement (Portland) clinker lithium carbonate sodium-dodecyl-sulfate

and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1)

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

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P261 Avoid breathing dust.

P280 Wear protective gloves, protective clothing and eye protection.

P302+P352 IF ON SKIN: Wash with plenty of water and soap.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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 doctor.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P501 Dispose of contents/container to according to local and international regulations.

2.3. Other hazards

Mixture does not contain any substance meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixture of substances and additives specified below. Contains substances for which occupational exposure limits are set.

Mixture contains these hazardous substances and substances with the highest permissible concentration in the working environment

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note.
CAS: 14808-60-7 ES: 238-878-4	Quartz (SiO2)	<90		
CAS: 1317-65-3 EC: 215-279-6	Limestone	<90		
CAS: 65997-15-1 EC: 266-043-4 Registration number: 02-2119682167-31- 0000	Cement (Portland) clinker	<65	Skin Irrit. 2, H315 Skin Sens. 1B, H317 Eye Dam. 1, H318 STOT SE 3, H335	3
CAS: 65996-69-2 EC: 266-002-0 Registration number: 01-2119487456-25	Blast furnace slag	<65		
EC: 931-322-8 Registration number: 01-2119491179-27	Ash	<35		
EC: 310-127-6	Expanded perlite (<1% of respirable quartz)	<20		

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Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note.
CAS: 12004-14-7 EC: 234-448-5 Registration number: 05-2114736990-41- 0000	Calcium Sulfon Aluminate	<15	Skin Irrit. 2, H315 STOT SE 3, H335	
CAS: 65997-16-2 EC: 266-045-5	Cement, aluminate cement, alumina	<10		
CAS: 1317-61-9 EC: 215-277-5	Triiron tetraoxide	<10		
CAS: 7778-18-9 EC: 231-900-3 Registration number: 01-2119444918-26	Calcium sulfate	<7		
CAS: 69012-64-2 EC: 273-761-1 Registration number: 01-2119486866-17- 0010	Microsilica - SIOXID	<7	STOT RE 2, H373	
CAS: 1344-28-1 EC: 215-691-6	Aluminium oxide	<5		
CAS: 68475-76-3 EC: 270-659-9 Registration number: 01-2119486767-17	Flue dust, Portland cement	<5	Skin Irrit. 2, H315 Skin Sens. 1B, H317 Eye Dam. 1, H318 STOT SE 3, H335	3
CAS: 92704-41-1 EC: 296-473-8 Registration number: isolate - Annex V, clause 7	Calcined kaolin	<5		
CAS: 14807-96-6 EC: 238-877-9	Talc (Mg3H2(SiO3)4)	<5		
CAS: 16389-88-1 EC: 240-440-2	Dolomite	<5		
CAS: 1309-37-1 EC: 215-168-2	Diiron trioxide	<4		
CAS: 544-17-2 EC: 208-863-7	Calcium formate	<2	Eye Dam. 1, H318	
CAS: 17927-65-0 EC: 233-135-0 Registration number: 01-2119531538-36-0000	Aluminium sulphate	<2	Eye Dam. 1, H318	
CAS: 1308-38-9 EC: 215-160-9 Registration number: 01-2119433951-39	Chromium oxide	<2		
CAS: 10034-76-1 ES: 600-067-1	Calcium sulphate hemihydrate	<1		

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Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note.
Index: 011-005-00-2 CAS: 497-19-8 EC: 207-838-8 Registration number: 01-2119485498-19- xxxx	Sodium carbonate	<1	Eye Irrit. 2, H319	
CAS: 5949-29-1 EC: 201-069-1 Registration number: 01-2119457026-42	Citric acid monohydrate	<0,5	Eye Irrit. 2, H319	
CAS: 554-13-2 EC: 209-062-5	Lithium carbonate	<0,5	Acute Tox. 4, H302	
CAS: 112926-00-8	Amorphous precipitated silica	<0,25		
Index: 028-057-00-7 CAS: 12035-39-1 EC: 234-825-4	Nickel titanium trioxide	<0,25	Skin Sens. 1, H317 Carc. 1A, H350i STOT RE 1, H372	2
	Mineral fibres	<0,2		
CAS: 1305-62-0 EC: 215-137-3 Registration number: 01-2119475151-45	Calcium hydroxide	<0,1	Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335	1
CAS: 151-21-3 EC: 205-788-1 Registration number: 01-2119489461-32	Sodium-dodecyl-sulfate	<0,1	Flam. Sol. 2, H228 Acute Tox. 4, H302+H332 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Chronic 3, H412	
CAS: 9049-76-7 EC: 232-679-6	Modified starch	<0,1		
Index: 011-002-00-6 CAS: 1310-73-2 EC: 215-185-5 Registration number: 01-2119457892-27	Caustic soda	<0,01	Met. Corr. 1, H290 Skin Corr. 1A, H314 Eye Dam. 1, H318 Specific concentration limit: Skin Corr. 1B, H314: $2\% \le C < 5\%$ Skin Corr. 1A, H314: $C \ge 5\%$ Eye Irrit. 2, H319: $0,5\% \le C < 2\%$ Skin Irrit. 2, H315: $0,5\% \le C < 2\%$	
Index: 613-167-00-5 CAS: 55965-84-9	and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1)	<0,0001	Acute Tox. 3, H301, H311, H331 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Acute 1, H400, M=10 Aquatic Chronic 1, H410, M=10 Specific concentration limit: Eye Irrit. 2, H319: $0.06\% \le C < 0.6\%$ Skin Sens. 1, H317: $C \ge 0.0015\%$ Skin Irrit. 2, H315: $0.06\% \le C < 0.6\%$ Skin Corr. 1B, H314: $C \ge 0.6\%$	

Notes

- 1 Substance for which exposure limits of Community for working environment exist.
- 2 The use of the substance is restricted by Annex XVII of REACH Regulation.

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3 Substance of unknown or variable composition, complex reaction products or biological materials - UVCB.

Full text of all classifications and hazard statements is given in the section 16.

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SECTION 4: First aid measures

4.1. Description of first aid measures

Take care of your own safety. If any health problems are manifested or if in doubt, inform a doctor and show him information from this safety data sheet. If unconscious, put the person in the stabilized (recovery) position on his side with his head slightly bent backwards and make sure that airways are free; never induce vomiting. If the person vomits by himself, make sure that the vomit is not inhaled. In life threatening conditions first of all provide resuscitation of the affected person and ensure medical assistance. Respiratory arrest - provide artificial respiration immediately. Cardiac arrest - provide indirect cardiac massage immediately.

Inhalation

Transfer person to fresh air. Dust from throat and nasal cavities should leave spontaneously. Do not seek medical advice if irritation persists or appears later, or if nausea, cough or other symptoms persist.

Skin contact

In the case of dry material, remove and rinse thoroughly with water. In the case of wet / damp, rinse the skin with plenty of water. Soap, soap solution or shampoo should be used if there is no skin injury. Remove contaminated clothing, shoes, watches, etc., and clean them thoroughly before using them any further. In case of irritation or burning, seek medical attention.

Eye contact

Do not rub your eyes – it could lead to mechanical damage of the cornea. Rinse eyes immediately with a flow of running water, open the eyelids (also using force if needed); remove contact lenses immediately if worn by the affected person. No neutralization should be performed in any case! Rinsing should be continued for 10-30 minutes from the inner to the outer eye corner to make sure that the other eye is not involved. Depending on the situation, call medical rescue service or ensure medical treatment as promptly as possible. Everyone must be referred for treatment even if affected only a little.

Ingestion

DO NOT INDUCE VOMITING! If the person is conscious, rinse / rinse her mouth with water and give plenty of water (2-5 dl) to drink. Get medical attention immediately or contact the Toxicological Information Centre.

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

Inhalation

May cause respiratory irritation. Long-term repeated inhalation of cement-containing materials increases the risk of developing lung diseases.

Skin contact

May cause an allergic skin reaction. Material containing cement may, after prolonged contact, have irritating effects on wet skin (as a result of sweating or soaking) or may cause contact dermatitis after repeated contact. Prolonged skin contact with wet cement material can cause serious burns as it develops with the initial absence of pain (e.g. kneading in moist concrete even through clothing).

Eye contact

Causes serious eye damage. Eye contact with cement-containing material (dry and wet) can cause serious and potentially irreversible injuries.

Ingestion

Corrosion of the digestion system can occur.

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

Symptomatic treatment

More information

Unknown

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Material is not flammable. Use a fire extinguisher, foam, or CO2 to extinguish the surrounding fire. Apply firefighting measures appropriate to the circumstances (situation) and the environment.

Unsuitable extinguishing media

On fresh material - water - full stream, there is a risk of leakage into sewerage. No unsuitable extinguishing media are known for the cured material.

5.2. Special hazards arising from the substance or mixture

In the event of fire, carbon monoxide, carbon dioxide and other toxic gases may arise. Materials are non-flammable and non-explosive and do not allow or support the burning of other materials. No dangerous combustion products are known from the product itself.

5.3. Advice for firefighters

Materials do not create any fire-related hazards. Firefighters do not need any special protective equipment. Avoid dust formation. Use fire-fighting measures that are appropriate to the circumstances (situation) and the environment. Do not allow run-off of contaminated fire extinguishing material to enter drains or surface and ground water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment for work. Follow the instructions in the Sections 7 and 8. Do not inhale dust. Prevent contact with skin and eyes.

6.2. Environmental precautions

Avoid soil contamination and leakage into surface or groundwater (increase in pH).

6.3. Methods and material for containment and cleaning up

Gently collect and use the product mechanically, if it is not dirty or damaged. Dispose of the collected material according to the instructions in the section 13. Dry material Use dry cleaning methods such as vacuum cleaning or dust extraction (industrial portable units equipped with high performance particulate air filters (EPA and HEPA filters, EN 1822-1: 2009) or similar devices) that reduce dust emissions to the air and do not cause scattering / dusting. Never use compressed air. Wet cleaning (water spray, fine mist), dust removal, wipe dust and remove sludge (see wet material). When wet cleaning, vacuuming and cleaning with brushes is not possible, ensure that workers wear appropriate personal protective equipment and prevent dust from spreading. Prevent inhalation of dust and skin contact. Spill the collected material into the container and use it. Allow the liquidation to solidify. Wet material When cleaning wet material, place it in the container. Allow the material to dry and solidify before liquidation.

6.4. Reference to other sections

See the Section 7, 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid dust formation at concentrations exceeding the highest permissible ambient air concentrations. Do not inhale dust. Prevent contact with skin and eyes. Wash hands and exposed parts of the body thoroughly after handling. Use only outdoors or in a well-ventilated area. Use personal protective equipment as per Section 8. Observe valid legal regulations on safety and health protection.

7.2. Conditions for safe storage, including any incompatibilities

Packaged products should be stored in original, well-sealed containers in a dry place, protected from dirt, to avoid loss of quality. Do not use aluminium containers due to material incompatibilities. Keep out of reach of children.

7.3. Specific end use(s)

not available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

The mixture contains substances for which occupational exposure limits are set.

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European Union

Substance name (component)	, ,	Time of exposure	Value	Note	Source
Calcium hydroxide (CAS: 1305-62-0)	OEL	8 hours	1 mg/m³		EU limits
	OEL	Short-term	4 mg/m ³		

United Kingdom of Great Britain and Northern Ireland

Substance name (component)	Туре	Time of exposure	Value	Note	Source
limestone (CAS: 1317-65-3)	WEL	8 hours	10 mg/m ³	Inhalable aerosol	Gestis
	WEL	Short-term	4 ppm	Respirable aerosol	
Cement (Portland) clinker (CAS: 65997-15-1)	WEL	8 hours	10 mg/m ³	Inhalable aerosol	Gestis
	WEL	Short-term	4 ppm	Respirable aerosol	
Aluminium oxide (CAS: 1344-28-1)	WEL	8 hours	10 mg/m ³	Inhalable aerosol	Gestis
	WEL	Short-term	4 ppm	Respirable aerosol	
Talc (Mg3H2(SiO3)4) (CAS: 14807-96-6)	WEL	8 hours	1 mg/m³	Respirable aerosol	Gestis
Amorphous precipitated silica (CAS: 112926-00-8)	WEL	8 hours	6 mg/m ³	Inhalable aerosol	Gestis
	WEL	Short-term	2,4 ppm	Respirable aerosol	
Calcium hydroxide (CAS: 1305-62-0)	WEL	8 hours	5 mg/m ³		Gestis
Caustic soda (CAS 1310-73-2)	WEL	Short-term	2 mg/m ³		Gestis

DNEL

calcium sulfate

Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Oral	11.4 mg/kg bw/day	Systemic acute effects	
Workers	Inhalation	3811 mg/m ³	Systemic acute effects	
Workers	Inhalation	5.29 mg/m ³	Systemic chronic effects	

Calcium Sulfon Aluminate

Workers / consumers	Route of exposure	Value	Effect	Determining method
	Inhalation	10 mg/m ³		

Calcium hydroxide

Workers / consumers	Route of	Value	Effect	Determining method
	exposure			
Workers	Inhalation	4 mg/m ³	Local acute effects	
Workers	Inhalation	1 mg/m³	Local chronic effects	
Consumers	Inhalation	4 mg/m ³	Local acute effects	
Consumers	Inhalation	1 mg/m³	Local chronic effects	

Caustic soda

Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Inhalation	1 mg/m³	Local chronic effects	

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Cement (Portland) clin				
Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Inhalation	5 mg/m ³		
Diiron trioxide				
Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Inhalation	10 mg/m ³	Local chronic effects	
Workers	Inhalation	3 mg/m ³	Systemic chronic effects	
Flue dust, Portland cer	ment			
Workers / consumers	Route of exposure	Value	Effect	Determining method
	Inhalation	1 mg/m³		Analogous approach
	Dermal	-		Analogous approach
	Oral			Analogous approach
Chromium oxide	.1			
Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Inhalation	2 mg/m ³	Local acute effects	
Workers	Inhalation	0.5 mg/m ³	Local chronic effects	
Consumers	Inhalation	0.5 mg/m ³	Local chronic effects	
Limestone	.1			
Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Inhalation	10 mg/m ³	Systemic chronic effects	
Consumers	Oral	6.1 mg/kg bw/day	Systemic acute effects	
Consumers	Oral	6.1 mg/kg bw/day	Systemic chronic effects	
Consumers	Inhalation	10 mg/m ³	Systemic chronic effects	
Nickel titanium trioxide	9	<u>, </u>		•
Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Inhalation	2.74 mg/m ³	Systemic chronic effects	
Workers	Inhalation	520 mg/m ³	Systemic acute effects	
Workers	Inhalation	0.05 mg/m ³	Local chronic effects	
Workers	Inhalation	3.9 mg/m ³	Local acute effects	
Workers	Dermal	0.024 mg/m ³	Local chronic effects	
Consumers	Inhalation	20 mg/m ³	Systemic chronic effects	
Consumers	Inhalation	312 mg/m ³	Systemic acute effects	
Consumers	Inhalation	20 mg/m ³	Local chronic effects	
Consumers	Inhalation	3.9 mg/m ³	Local acute effects	
Aluminium sulphate				·
Workers / consumers	Route of exposure	Value	Effect	Determining method
Workers	Inhalation	20.2 mg/m ³	Systemic chronic effects	
	Ovel			<u> </u>

3.4 mg/kg bw/day

Systemic chronic effects

Oral

Page

Consumers

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Sodium-dodecyl-sulfate

Workers / consumers	Route of	Value	Effect	Determining method
	exposure			
Workers	Dermal	4060 mg/kg	Systemic chronic effects	
Workers	Inhalation	285 mg/m ³	Systemic chronic effects	
Consumers	Dermal	2440 mg/kg	Systemic chronic effects	
Consumers	Inhalation	85 mg/m ³	Systemic chronic effects	
Consumers	Oral	24 mg/kg	Systemic chronic effects	

PNEC

Calcium hydroxide

Route of exposure	Value	Determining method
Freshwater environment	0.49 mg/l	
Seawater	0.32 mg/l	
Microorganisms in wastewater treatment plants	3 mg/l	
Soil (agricultural)	1.080 mg/kg of dry substance of soil	

Flue dust, Portland cement

Route of exposure	Value	Determining method		
Soil (agricultural)	-	Analogous approach		
Freshwater environment	-	Analogous approach		
Freshwater sediment	-	Analogous approach		

Chromium oxide

Route of exposure	Value	Determining method
Soil (agricultural)	3.2 mg/kg	
Microorganisms in wastewater treatment plants	10 mg/l	
Sea sediments	1.31 mg/kg	
Seawater	0.0047 mg/l	
Water (occasional leak)	0.0047 mg/l	
Freshwater sediment	18.2 mg/kg	
Freshwater environment	0.0047 mg/l	

Limestone

Route of exposure	Value	Determining method
Microorganisms in wastewater treatment plants	100 mg/l	

Nickel titanium trioxide

Route of exposure	Value	Determining method
Drinking water	3.6 µg/l	
Seawater	8.6 µg/l	
Microorganisms in wastewater treatment plants	0.33 mg/l	
Soil (agricultural)	29.9 mg/kg	

Aluminium sulphate

Route of exposure	Value	Determining method
	20 mg/l	

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Sodium-dodecyl-sulfate

Route of exposure	Value	Determining method
Freshwater environment	0.137 mg/l	
Seawater	0.0137 mg/l	
Water (occasional leak)	0.055 mg/l	
Freshwater sediment	4.82 mg/kg	
Sea sediments	0.482 mg/kg	
Soil (agricultural)	0.882 mg/kg	
Microorganisms in wastewater treatment plants	1.35 mg/l	

Other information of limit values

The limit for calcined kaolin corresponds to the limit of the Government Order for Other Silicates (except asbestos).

8.2. Exposure controls

Follow the usual measures intended for health protection at work and especially for good ventilation. This can be achieved only by local suction or efficient general ventilation. If exposure limits cannot be observed in this mode, suitable protection of airways must be used. Do not eat, drink and smoke during work. Wash your hands thoroughly with water and soap after work and before breaks for a meal and rest.

Eve/face protection

Do not wear contact lenses. In order to prevent eye contact, wear approved glasses or goggles according to EN 166 when handling dry or wet materials.

Skin protection

In order to protect the skin from long-term contact with wet material, wear impervious gloves resistant to abrasion and alkali (nitrile made of low soluble Cr (VI)) material, internally stitched with cotton, high boots, closed sleeve and trouser garments, for skin protection (including protective creams). In particular, it is necessary to ensure that the wet material does not get into the shoes. In cases where contact can not be avoided, e.g. when laying, use waterproof trousers and knee protection.

Respiratory protection

If the person is potentially exposed to dust levels higher than the exposure limits, use respiratory protection. This should be adapted to the dust level and comply with the applicable EN standard (e.g. EN 149+A1, EN 140, EN 14387+A1, EN 1827+A1) or in accordance with national standards.

Thermal hazard

Not available.

Environmental exposure controls

Observe usual measures for protection of the environment, see Section 6.2.

More information

Avoid kneading in wet material when possible. If kneeling can not be avoided, use appropriate waterproof personal protective equipment. Do not eat, drink or smoke while working with material to prevent skin or eye contact. Before using the cement-containing material, use a protective cream and use it repeatedly at regular intervals. Immediately after working with cement-based materials, workers need to wash or spray or use moisturizing agents. Remove contaminated clothing, shoes, watches, etc., and thoroughly clean them before reuse.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance Powder
Physical state Solid at 20°C

Colour According to pigmentation

Odour Without fragrance
Odour threshold Data not available
pH Data not available
Melting point/freezing point Data not available
Initial boiling point and boiling range Data not available
Flash point Data not available

Evaporation rate

Flammability (solid, gas)

Non-applicable
The product is non-flammable.

I land a land and like a surfacing limits

Upper/lower flammability or explosive limits

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Flammability limits
Explosive limits
Data not available
Data not relevant
Solid - not relevant
Relative density
2.75-3.20 g/cm3 (density)

Solubility(ies)

Solubility in water

Solubility in fats

Data not available

Partition coefficient: n-octanol/water

Auto-ignition temperature

Decomposition temperature

Data not available

Decomposition temperature

Data not available

Data not available

Data not available

Data not available

Explosive properties The product does not have explosive properties.

Oxidising properties

The product has no oxidizing properties.

Solid - not relevant, or not available

9.2. Other information

Density Data not available Ignition temperature Data not available

pH (t = 20° C in water, the water-solid ratio 1:2): 11-13,5

SECTION 10: Stability and reactivity

10.1. Reactivity

After mixing with water, the material hardens to a stable mass that is not reactive in the normal environment.

10.2. Chemical stability

Under normal dry conditions, the product is stable. Dry materials are stable until properly stored (see Section 7) and are compatible with most other building materials. Keep them dry. Contact with incompatible materials should be avoided. The wet material is alkaline and incompatible with acids, ammonium salts, aluminium or other non-ferrous metals. The cement contained in the material dissolves in hydrofluoric acid to form a corrosive gas of tetrafluoride. The cements react with water to form silicates and calcium hydroxide. The silicates in the cements react with strong oxidizing agents such as fluorine, boron fluoride, chlorite fluoride, manganic fluoride and oxygen difluoride.

10.3. Possibility of hazardous reactions

Unknown

10.4. Conditions to avoid

The product is stable and no degradation occurs under normal use. Wet storage conditions can cause clumping and loss of product quality.

10.5. Incompatible materials

Acids, ammonium salts, aluminium or other non-ferrous metals. Uncontrolled use of aluminium powder should be avoided, hydrogen evolving / developing.

10.6. Hazardous decomposition products

Not developed under normal uses. Dangerous outcomes such as carbon monoxide and carbon dioxide are formed at high temperature and in fire.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

No toxicological data is available for the mixture.

Acute toxicity

Based on available data the classification criteria are not met.

Amorphous precipitated silica

Route of exposure	Parameter	Method		Time of exposure	Species	 Determining method	Source
Oral	LD50		>10000 mg/kg		Rat		
Dermal	LD50		>5000 mg/kg		Rabbit		

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Route of exposure	Parameter	Method	Value	Time of exposure	Species	Determining method	Source
Oral	LD50		550 mg/kg		Rat		
Dermal	LD50		200-1000 mg/kg		Rat		
Inhalation	LC50		0.31 mg/l	4 hour	Rat		

Calcium formate

Route of exposure	Parameter	Method		Time of exposure	Species	 Determining method	Source
Oral	LD50		2650 mg/kg		Rat		

Calcium sulphate

	<u> </u>							
Route of exposure	Parameter	Method	Value	Time of exposure	Species	Sex	Determining method	Source
Oral	LD50	OECD 420	>1581 mg/kg bw		Rat			
Inhalation	LC50	OECD 403	>2610 mg/m ³ of air		Rat			
Inhalation	LC50	OECD 403	>3.26 mg/l	4 hour	Rat			
Inhalation	LC50	OECD 403	>2.61 mg/l		Rat			

Calcium hydroxide

Route of exposure	Parameter	Method		Time of exposure	Species	 Determining method	Source
Oral	LD50	OECD 425	>2000 mg/kg		Rat		
Dermal	LD50	OECD 402	>2500 mg/kg		Rabbit		

Caustic soda

Route of exposure	Parameter	Method		Time of exposure	Species	 Determining method	Source
Oral	LD50		325 mg/kg		Rat		

Cement, aluminous cement, alumina

Route of exposure	Parameter	Method	Value	Time of exposure	Species	Determining method	Source
Oral	LD50	OECD 401	>2000 mg/kg		Rat		BL produc

Citric acid monohydrate

- 1	Route of exposure	Parameter	Method		Time of exposure	Species	Determining method	Source
	Dermal	LD50	OECD 402	>2000 mg/kg		Rat		

Diiron trioxide

Route of exposure	Parameter	Method	Value	Time of exposure	Species	 Determining method	Source
Oral	LD50		>5000 mg/kg		Rat		
Inhalation (dust/mist)	LD50		>210 mg/m ³	2 week	Rat		

Flue dust, Portland cement

Route of exposure	Parameter	Method	Value	Time of exposure	Species	Determining method	Source
Dermal	LD50	OECD 402	2000 mg/kg bw	24 hour	Rat	Experimental ly	
Inhalation	LD50	OECD 436	6000 mg/m ³	48 hour	Rat	Experimental ly	

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Flue dust, Portland cement	Flue	dust,	Portland	cement
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Route of exposure	Parameter	Method		Time of exposure	Species	Determining method	Source
Oral	LD50	OECD 422	1848 mg/kg bw/day	72 day	Rat	Literary studies	

Chromium oxide

	Parameter	Method	Value		Species	 Determining method	Source
exposure				exposure		method	
Oral	LD50	OECD 401	>5000 mg/kg		Rat		
Inhalation	LD50	OECD 403	>5.41 mg/l		Rat		

Limestone

Route of exposure	Parameter	Method	Value	Time of exposure	Species	Sex	Determining method	Source
Oral	LD50		>5000 mg/kg		Rat			
Oral	LD50	OECD 420	>2000 mg/kg bw		Rat			
Dermal	LD50	OECD 402	>2000 mg/kg bw		Rat			
Inhalation	LC50	OECD 403	>3 mg/l of air	4 hour	Rat			
Oral	LD50	OECD 425	6450 mg/kg		Rat			

Nickel titanium trioxide

Route of exposure	Parameter	Method	Value	Time of exposure	Species	 Determining method	Source
Oral	LD50		>2000 mg/kg		Rat		

Quartz (SiO2)

Route of exposure	Parameter	Method		Time of exposure	Species	 Determining method	Source
Oral	LD50		500 ma/ka		Rat		

Aluminium sulphate

Route of exposure	Parameter	Method	Value	Time of exposure	Species	 Determining method	Source
Oral	LD50		>5000 mg/kg		Rat		

Sodium carbonate

Route of exposure	Parameter	Method	Value	Time of exposure	Species	Determining method	Source
Oral	LD50		>5000 mg/kg		Rat		
Oral	LD50		2800 mg/kg		Rat		
Inhalation	LC50		2300 mg/m³ of air		Rat		
Dermal	LD50		>2000 mg/kg		Rabbit		

Sodium-dodecyl-sulphate

Route of exposure	Parameter	Method	Value	Time of exposure	Species	Determining method	Source
Oral		OECD 401	>500-2000 mg/kg		Rabbit		
Dermal		OECD 402	>2000 mg/kg		Rabbit		

Triiron tetraoxide

Route of exposure	Parameter	Method	Value	Time of exposure	Species	 Determining method	Source
Oral	LD50		>5000 mg/kg		Rat		

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Lithium carbonate

Route of exposure	Parameter	Method	Value	Time of exposure	Species	Determining method	Source
Oral	LD50		525 mg/kg		Rat		
Inhalation	LC50		2.17 mg/l	4 hour	Rat		

Blast furnace slag

Route of exposure	Parameter	Method	Value	Time of exposure	Species	Determining method	Source
Oral	LD50	OECD 401	2000 mg/kg		Rat		
Inhalation	LD50	OECD 403	5235 mg/m ³		Rat		

Skin corrosion/irritation

Causes skin irritation.

and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1)

Route of exposure	Result	Method	Time of exposure	•	Determining method	Source
	Irritating			Rabbit		

Calcium formate

Route of exposure	Result	Method	Time of exposure	•	Determining method	Source
Dermal	Not irritating			Rabbit		

Calcium hydroxide

Route of exposure	Result	Method	Time of exposure		Determining method	Source
Skin	Irritating	OECD 404		Rabbit		

Cement, aluminous cement, alumina

Route of exposure	Result	Method	Time of exposure	•	Determining method	Source
Dermal	No effect	OECD 404		Rabbit		BL producer

Citric acid monohydrate

Route of exposure	Result	Method	Time of exposure	- F	Determining method	Source
	Indeterminate					

Flue dust, Portland cement

Route of exposure	Result	Method	Time of exposure	Species	Determining method	Source
Dermal	Irritating	in vitro			Literary studies	

Limestone

Route of exposure	Result	Method	Time of exposure	Species	Determining method	Source
	Not irritating	OECD 404				

Sodium-dodecyl-sulphate

Route of exposure	Result	Method	Time of exposure	Determining method	Source
Dermal	Irritating	OECD 404			
Eye	Highly irritating	OECD 405			

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Serious eye damage/irritation

Causes serious eye damage

Calcium formate

Route of exposure	Result	Method	Time of exposure		Determining method	Source
Eye	Irritating			Rabbit		

Calcium hydroxide

Route of exposure	Result	Method	Time of exposure		Determining method	Source
	Serious eye damage			Rabbit		

Cement, aluminous cement, alumina

Route of exposure	Result	Method	Time of exposure		Determining method	Source
Eye	No effect	OECD 405	72 hour	Rabbit		BL producer

Citric acid monohydrate

Route of exposure	Result	Method	Time of exposure	Species	Determining method	Source
	Irritating					

Flue dust, Portland cement

Route of exposure	Result	Method	Time of exposure	•	Determining method	Source
Eye	Serious eye damage	OECD 438			Experimentally, Literary studies, Calculation of value	

Limestone

Route of exposure	Result	Method	Time of exposure	- P	Determining method	Source
Eye	Not irritating	OECD 405				

Aluminium sulphate

Route of exposure	Result	Method	Time of exposure	Species	Determining method	Source
	Serious eye damage					

Sensitization

Nickel titanium trioxide

Route of exposure	Result	Time of exposure	Species	Sex
Skin	Sensitizing			

Respiratory or skin sensitisation

May cause an allergic skin reaction. Based on available data the classification criteria are not met.

and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1)

,	-	3 ()		
Route of exposure	Result	Time of exposure	Species	Sex
Dermal	Sensitizing		Guinea-pig	

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Flue dust, Portland cement

Route of exposure	Result	Time of exposure	Species	Sex
Dermal	Sensitizing			
Inhalation	No effect			

Germ cell mutagenicity

Based on available data the classification criteria are not met.

Calcium hydroxide

Result	Method	•	Specific target organ	Species	Sex
Negative	OECD 471				

Sodium-dodecyl-sulphate

Result	Method	•	Specific target organ	Species	Sex
Negative	OECD 471				

Carcinogenicity

Based on available data the classification criteria are not met.

Nickel titanium trioxide

Route of exposure	Parameter	Value	Result	Species	Sex
Inhalation			Carcinogenic		

Reproductive toxicity

Based on available data the classification criteria are not met.

Calcium sulfate

	Parameter	Method	Value	Time of exposure	Result	Species	Sex
Effects on fertility	NOAEL	OECD 422	790 mg/kg bw/day		No effect	Rat	
Evolution toxicity	NOAEL		1600 mg/l				

Flue dust, Portland cement

Parameter	Method	Value	Time of exposure	Result	Species	Sex
	OECD 422	16000 mg/kg bw	28 day	No effect		М
	OECD 422	16000 mg/kg bw	6-7 week	No effect		F

Toxicity for specific target organ - single exposure

May cause respiratory irritation.

Flue dust, Portland cement

Route of exposure	Parameter	Specific target organ	Result	Species	Determining method
		Lungs	Slightly irritating		Analogous approach, Literary studies

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Toxicity for specific target organ - repeated exposure

Based on available data the classification criteria are not met.

Aspiration hazard

Based on available data the classification criteria are not met.

Inhalation of cement-containing dust may aggravate existing respiratory diseases or health conditions such as emphysema (asthma) or asthma or existing condition of the skin or eyes.

SECTION 12: Ecological information

12.1. Toxicity

Acute toxicity

Data for the mixture are not available.

amorphous precipitated silica

Parameter	Method	Value	Time of exposure	•	Environme nt	Source
LC50		>100 mg/l	96 hour	Fishes (Oncorhynchus mykiss)		
LC50		>100 mg/l	96 hour	Fishes (Lepomis macrochines)		

and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1)

Parameter	Method	Value	Time of exposure	Species	Environme nt	Source
EC50		31.7 mg/l	3 hour	Bacteria		
EC50		1.02 mg/l	48 hour	Invertebrates (Daphnia magna)		
EC50		>1 mg/l	21 day	Invertebrates (Daphnia magna)		
LC50		0.58 mg/l	96 hour	Fishes (Danio rerio)		
LOAEL		1.6 mg/l	34 day	Fishes (Danio rerio)		
NOEC		0.5 mg/l	34 day	Fishes (Danio rerio)		
EC50		0.161 mg/l	72 hour	Algae (Pseudokirchneriel la subcapitata (biomass))		
EC50		0.379 mg/l	72 hour	Algae (Pseudo- kirchneriella subcapitata (degre of growth))	e	
EC50		0.166 mg/l	96 hour	Algae (Pseudokirchneriel la subcapitata)		
NOEC		0.032 mg/l	96 hour	Algae (Pseudo- kirchneriella subcapitata (degre of growth))	e	

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Calcium formate

Parameter	Method	Value	Time of exposure	Species	Environme nt	Source				
LC50		>1000 mg/l	96 hour	Fishes (Branchydanio rerio)	Freshwate r					
EC50		>10000 mg/l	3 hour	Aquatic invertebrates	Activated sludge					

Calcium sulfate

Parameter	Method	Value	Time of exposure	•	Environme nt	Source
LC50	OECD 203	>79 mg/l	96 hour	Fishes (Oryzias latipes)		
EC50	OECD 202	>79 mg/l	48 hour	Daphnia (Daphnia magna)		
EC50	OECD 201	>79 mg/l	72 hour	Algae (Selenastrum capricornutum)		
EC50	OECD 209	>790 mg/l	3 hour	Microorganisms	Activated sludge	

Calcium hydroxide

Parameter	Method	Value	Time of exposure	Species	Environme nt	Source
LC50	OECD 203	50.6 mg/l	96 hour	Fishes	Freshwate	
LC50		457 mg/l	96 hour	Fishes	Salt water	
EC50	OECD 202	49.1 mg/l	48 hour	Daphnia (Daphnia magna)	Freshwate r	
LC50		158 mg/l	96 hour	Invertebrates	Salt water	
EC50	OECD 201	184.57 mg/l	72 hour	Algae	Freshwate	
NOEC	OECD 201	48 mg/l	72 hour	Algae	Freshwate	
NOEC		32 mg/l	14 day	Invertebrates	Salt water	
NOEC		12000 mg/kg of dry substance of soil		Microorganisms (Photobacterium phosphoreum)		
NOEC		1080 mg/kg	21 day	Higher plants		
EC50	OECD 209	300.4 mg/l	3 hour	Bacteria	Activated sludge	

Caustic soda

Parameter	Method	Value	Time of exposure	Species	Environme nt	Source
EC50		76 mg/l	24 hour	Daphnia (Daphnia magna)		
LC50		145 mg/l	24 hour	Fishes (Poecilia reticulata)		
LC50		125 mg/l	96 hour	Fishes (Gambusia affinis)		

Cement, aluminous cement, alumina

Parameter	Method	Value	Time of exposure	•	Environme nt	Source
LC50	OECD 203	>100 mg/l	96 hour	Fishes (Oncorhynchus mykiss)		BL producer

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Cement, aluminous cement, alumina

Parameter	Method	Value	Time of exposure	Species	Environme nt	Source
NOEC	OECD 203	>100 mg/l	96 hour	Fishes (Oncorhynchus mykiss)		SDS producer
EC50	OECD 202	6.6 mg/l	48 hour	Daphnia (Daphnia magna)		SDS producer
NOEC	OECD 202	1.8 mg/l	72 hour	Daphnia (Daphnia magna)		SDS producer
ErC50	OECD 201	>5.6 mg/l	72 hour	Algae (Pseudokirchneriel la subcapitata)		SDS producer
NOEC	OECD 201	3.2 mg/l	72 hour	Algae (Pseudokirchneriel la subcapitata)		SDS producer

Citric acid monohydrate

Parameter	Method	Value	Time of exposure	•	Environme nt	Source
LC50	OECD 203	440 mg/l	48 hour	Fishes (Leuciscus idus)		
LC50		1516-1710 mg/l	96 hour	Fishes (Lepomis macrochirus)		
LC50		1535 mg/l	24 hour	Daphnia (Daphnia magna)		
LC50		160 mg/l	48 hour	Crustaceans		
EC50		>10000 mg/l		Bacteria (Pseudomonas putida)		

Diiron trioxide

Parameter	Method	Value	Time of exposure	•	Environme nt	Source
EC50		>10000 mg/l	3 hour	Microorganisms	Activated sludge	
EC50	OECD 202	>100 mg/l	48 hour	Daphnia (Daphnia magna)		

Flue dust, Portland cement

Parameter	Method	Value	Time of exposure	Species	Environme nt	Source
NOEC		11.1 mg/l	96 hour	Fishes (Danio rerio)		
NOEL		50 mg/l	48 hour	Daphnia (Daphnia magna)		
NOEL		6.25 mg/l	72 hour	Algae (Desmodesmus subspicatus)		
EC50		596 mg/l	72 hour	Microorganisms	Activated sludge	
LOEL		100 mg/l	48 hour	Daphnia (Daphnia magna)		
LOEL		12.5 mg/l	72 hour	Algae (Desmodesmus subspicatus)		
NOEC		875 mg/kg of dry substance of sediment		Invertebrates (Corophium volutator)		

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Flue dust, Portland cement

Parameter	Method	Value	Time of exposure	Species	Environme nt	Source
LC50		9931 mg/kg		Invertebrates (Corophium volutator)		
NOEC		1000 mg/kg of dry substance of soil		Invertebrates (Eisenia fetida)		
NOEC		1000 mg/kg of dry substance of soil		Higher plants (Avena, Brassica Napus, Glycine Max)		
NOEC		1000 mg/kg of dry substance of soil	8 day	Microorganisms		
NOEC		500 mg/kg of dry substance of soil	28 day	Microorganisms		

Chromium oxide

Parameter	Method	Value	Time of exposure		Environme nt	Source
EC50		>10000 mg/l	3 hour	Bacteria	Activated sludge	
LC50	ISO 7346-1	>10000 mg/l	96 hour	Fishes (Danio rerio)	Freshwate r	

Limestone

Parameter	Method	Value	Time of exposure	Species	Environme nt	Source
LC50		>10000 mg/l	96 hour	Fishes (Oncorhynchus mykiss)		
EC50		>1000 mg/l	48 hour	Daphnia (Daphnia magna)		
EC50	OECD 201	>200 mg/l	72 hour	Algae (Desmodesmus subspicatus)		
LC50	OECD 203	>100 %	96 hour	Fishes (Oncorhynchus mykiss)		
EC50	OECD 208	>1000 mg/l	3 hour	Bacteria (Salmonella typhimurium)	Activated sludge	
EC50	OECD 202	>100 %	48 hour	Daphnia (Daphnia magna)		

Nickel titanium trioxide

Parameter	Method	Value	Time of exposure	•	Environme nt	Source
LC50		>10000 mg/l	96 hour	Fishes (Leuciscus idus)		
EC50		>100 mg/l	48 hour	Daphnia (Daphnia magna)		
EC50	OECD 201	>100 mg/l	72 hour	Algae (Desmodesmus subspicatus)		

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Aluminium sulphate

Parameter	Method	Value	Time of exposure	Species	Environme nt	Source
LC50	OECD 203	>1000 mg/l	96 hour	Fishes (Danio rerio)		
EC50	OECD 202	>160 mg/l	48 hour	Daphnia (Daphnia magna)		

Sodium carbonate

Parameter	Method	Value	Time of exposure	•	Environme nt	Source
LC50		>1600 mg/l	48 hour	Fishes (Leuciscus idus)		
EC50	OECD 209	>1000 mg/l		Bacteria		
LC50		300 mg/l	96 hour	Fishes (Lepomis macrochirus)		
EC50		200-227 mg/l	48 hour	Invertebrates (Ceriodaphnia dubia)		

Sodium-dodecyl-sulphate

Parameter	Method	Value	Time of exposure		Environme nt	Source
LC50		10-100 mg/l		Fishes (Pimephales		
EC50	OECD 209	>100 mg/l		Bacteria		

Chronic toxicity

Sodium-dodecyl-sulphate

Parameter	Value	Time of exposure	Species	Environment
NOEC	>1-10 mg/l		Fishes (Pimephales promelas)	

12.2. Persistence and degradability

Biodegradability

and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1)

		7 (,		
Parameter	Method	Value	Time of exposure	Environment	Result
					Hardly biodegradable

Calcium formate

Parameter	Method	Value	Time of exposure	Environment	Result
	OECD 301D	>75 %	20 day		

Citric acid monohydrate

Parameter	Method	Value	Time of exposure	Environment	Result
		98 %			Easily biodegradable

Data not available

12.3. Bio-accumulative potential

according to Regulation (EC) No 1907/2006 (REACH) as amended

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and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1)

Parameter	Value	Time of exposure	Species	Surrounding temperature [°C]
Log Pow	-0.486-0.401			

Not available.

12.4. Mobility in soil

Not available.

12.5. Results of PBT and vPvB assessment

Product does not contain any substance meeting the criteria for PBT or vPvB in accordance with the Annex XIII of Regulation (EC) No 1907/2006 (REACH) as amended.

12.6. Other adverse effects

Not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Hazard of environmental contamination; dispose of the waste in accordance with the local and/or national regulations. Proceed in accordance with valid regulations on waste disposal. Products can be reused if they are not polluted or otherwise degraded. Waste treatment methods are not used here. Do not discharge into drains or surface water. Product - which has exceeded its useful life / durability / shelf life (and when it has been shown to contain more than 0,0002 % soluble Cr (VI) in terms of cement content): it must not be used / sold other than for use in controlled closed and fully automated processes or should be recycled or disposed of compliance with applicable legislation, or re-use of the reducing agent).

Product - unused residues or dry material

Gather mechanically dry unused residues or spilled dry material as it is. Mark the containers. It is possible to reuse the material when considering the service life and the requirement to avoid dusting. In case of disposal, harden with water and dispose according to the point below "Product - after mixing with water / after addition of water, cured".

Product - sludge

Allow the sludge to solidify, avoid penetration or pouring into sewage and sewage systems or into waterways (e.g. streams) and dispose as explained below under "Product - after mixing with water / after addition of water, cured".

Product - after mixing with water / after addition of water, cured

Discard according to local legislation. Avoid access to the waste water system. Discard the cured product as specific waste. Since curing becomes a relatively inert material, it is not a hazardous waste.

Legislation of waste

Council Directive 75/442/EEC on waste, as amended. Decree No. 383/2001 Coll., on details regarding waste handling as amended. Decree No. 93/2016 Coll., (waste catalogue) as amended. Decision 2000/532/EC establishing a list of wastes, as amended.

Waste type code

10 13 14 Waste concrete and concrete sludge

10 13 99 Wastes not otherwise specified

17 01 01 Concrete

Packaging waste type code

15 01 05 Composite packaging

SECTION 14: Transport information

14.1. UN number

Not subject to ADR.

14.2. UN proper shipping name

Not available.

14.3. Transport hazard class(es)

Not available.

14.4. Packing group

Not available.

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14.5. Environmental hazards

Not available.

14.6. Special precautions for user

Reference in the Sections 4 to 8.

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

Not available.

SECTION 15: Regulatory information

L5.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Permission: Not required.

Restrictions on use: None.

It does not contain SEVESO substances (Directive 96/82 / EC), does not contain ozone-Other EU regulations: depleting substances and persistent organic pollutants. Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16th December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No. 1907/2006, as amended. The Act No. 350/2011 Coll., on Chemical Substances and Chemical Preparations as amended (the Chemical Act). The Act No. 350/2011 Coll., on Chemical Substances and Chemical Preparations as amended. The Act No. 258/2000 Coll., on Protection of Public Health as amended. Decree No. 361/2007 Coll., determining conditions of occupational health protection as amended. Decree No. 415/2012 Coll., on the permissible level of pollution and its determination and implementation of certain other provisions of the Air Protection Act as amended. The Act No. 185/2001 Coll., on Waste and the Amendment of Some Other Acts as amended. The Act No. 201/2012 Coll., on the Protection of Atmosphere - Clean Air Act as amended. Decree No. 80/2014 Coll., amending the Decree No. 194/2001 Coll., laying down technical requirements for aerosol sprays as amended. Decree No. 432/2003 Coll., laying down conditions for assigning categories to individual jobs, limit values of indices from biological exposure tests, conditions for the sampling of biological materials for biological exposure and the particulars of the reports on work with asbestos and biological agents as amended.

Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Commission Directive 2006/15/EC of 7 February 2006 establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC. Commission Directive 2009/161/EU of 17 December 2009 establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC. Commission Directive (EU) 2017/164 of 31 January 2017 establishing a fourth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC, and amending Commission Directives 91/322/EEC, 2000/39/EC and 2009/161/EU.

The product is a mixture according to the REACH Regulation (EC) 1907/2006 and is not subject to registration. The product is a mixture according to the REACH Regulation (EC) 1907/2006 and is not subject to registration:

- 1. Cement and cement-containing preparations must not be used or placed on the market if, after mixing with water, they contain more than 0,0002% of soluble hexavalent chromium based on total dry cement weight.
- 2. Where reducing agents are used, cement or cement-containing packaging must be legibly and indelibly marked with information on the date of packaging as well as the conditions and storage times appropriate for maintaining the activity of the reducing agent and keeping the soluble hexavalent chromium content below the limit laid down in paragraph 1, without prejudice to the application of other Community provisions on the classification, packaging and labelling of dangerous substances and preparations.
- 3. By way of derogation, paragraphs 1 and 2 shall not apply to the placing on the market and use in controlled closed and fully automated processes in which cement and cement-containing preparations only handle machinery and are not capable of contact with the skin.

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Restrictions pursuant to Annex XVII of Regulation (EC) No. 1907/2006 (REACH), as amended

nickel titanium trioxide

Restriction	Conditions of restriction
28	Without prejudice to the other parts of this Annex the following shall apply to entries 28 to 30: 1. Shall not be placed on the market, or used, — as substances,
	— as constituents of other substances, or,
	— in mixtures, for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than:
	— either the relevant specific concentration limit specified in Part 3 of Annex VI to Regulation (EC) No 1272/2008, or,
	— the relevant concentration specified in Directive 1999/45/EC where no specific concentration limit is set out in
	Part 3 of Annex VI to Regulation (EC) No 1272/2008.
	Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of substances and mixtures, suppliers shall ensure before the placing on the market that the packaging of such substances and mixtures is marked visibly, legibly and indelibly as follows:
	"Restricted to professional users".
	2. By way of derogation, paragraph 1 shall not apply to: (a) medicinal or veterinary products as defined by Directive 2001/82/EC and Directive 2001/83/EC; (b) cosmetic products as defined by Directive 76/768/EEC; (c) the following fuels and oil products: — motor fuels which are covered by Directive 98/70/EC,
	 mineral oil products intended for use as fuel in mobile or fixed combustion plants, fuels sold in closed systems (e.g. liquid gas bottles); (d) artists' paints covered by Directive 1999/45/EC.
	(e) the substances listed in Appendix 11, column 1, for the applications or uses listed in Appendix 11, column 2. Where a date is specified in column 2 of Appendix 11, the derogation shall apply until the said date.

15.2. Chemical safety assessment

No chemical safety assessment was performed for this mixture. The composition of the mixture was based on information in SDS sheets of raw materials.

SECTION 16: Other information

A list of standard risk phrases used in the safety data sheet

H228	Flammable solid.
H290	May be corrosive to metals.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H350i	May cause cancer by inhalation.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H302+H332	Harmful if swallowed or if inhaled.

according to Regulation (EC) No 1907/2006 (REACH) as amended

Dry cement mortar mixes

Creation date 13. February 2018

Revision date Version 1.0

Guidelines for safe handling used in the safety data sheet

P501 Dispose of contents/container to according to local and international regulations.

P102 Keep out of reach of children.

P280 Wear protective gloves, protective clothing and eye protection.

P310 Immediately call a doctor.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P101 If medical advice is needed, have product container or label at hand. P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P261 Avoid breathing dust.

P302+P352 IF ON SKIN: Wash with plenty of water and soap.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Other important information about human health protection

The product must not be - unless specifically approved by the manufacturer/importer - used for purposes other than as per the Section 1. The user is responsible for adherence to all related health protection regulations.

Key to abbreviations and acronyms used in the safety data sheet

ADR European agreement concerning the international carriage of dangerous goods by road

BCF Bioconcentration Factor
CAS Chemical Abstracts Service

CLP Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and

mixtures

DNEL Derived no-effect level

EC Identification code for each substance listed in EINECS

EC50 Concentration of a substance when it is affected 50% of the population EINECS European Inventory of Existing Commercial Chemical Substances

EmS Emergency plan EU European Union

IATA International Air Transport Association

IBC International Code For The Construction And Equipment of Ships Carrying Dangerous

Chemicals

IC50 Concentration causing 50% blockadeICAO International Civil Aviation OrganizationIMDG International Maritime Dangerous Goods

INCI International Nomenclature of Cosmetic Ingredients
ISO International Organization for Standardization
IUPAC International Union of Pure and Applied Chemistry

LC50 Lethal concentration of a substance in which it can be expected death of 50% of the

population

LD50 Lethal dose of a substance in which it can be expected death of 50% of the population

LOAEC Lowest observed adverse effect concentration

LOAEL Lowest observed adverse effect level log Kow Octanol-water partition coefficient

MARPOL International Convention for the Prevention of Pollution From Ships

NOAEC No observed adverse effect concentration

NOAEL No observed adverse effect level
NOEC No observed effect concentration

NOEL No observed effect level
OEL Occupational Exposure Limits

PBT Persistent, Bio-accumulative and Toxic PNEC Predicted no-effect concentration

ppm Parts per million

REACH Registration, Evaluation, Authorisation and Restriction of Chemicals

RID Agreement on the transport of dangerous goods by rail

UN Four-figure identification number of the substance or article taken from the UN Model

Regulations

according to Regulation (EC) No 1907/2006 (REACH) as amended

Dry cement mortar mixes

Substances of unknown or variable composition, complex reaction products or biological

Creation date 13. February 2018

UVCB

Revision date Version 1.0

materials

VOC Volatile organic compounds

vPvB Very Persistent and very Bio-accumulative

Acute Tox. Acute toxicity

Aquatic Acute Hazardous to the aquatic environment Aquatic Chronic Hazardous to the aquatic environment

Carc. Carcinogenicity Eye Dam. Serious eye damage Eye Irrit. Eye irritation Flam. Sol. Flammable solid Corrosive to metals Met. Corr. Skin Corr. Skin corrosion Skin Irrit. Skin irritation Skin sensitization Skin Sens.

STOT RE Specific target organ toxicity - repeated exposure STOT SE Specific target organ toxicity - single exposure

Training guidelines

Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the product. In addition to training programs on health, safety and environmental protection for workers, companies must ensure that workers read this SDS, understand it and apply it.

Recommended restrictions of use

not available

Information about data sources used to compile the Safety Data Sheet

REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended. REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. The Act No. 350/2011 Coll., on Chemical Substances and Chemical Preparations as amended. First aid principles after the exposure to the chemicals (Zásady pro poskytování první pomoci při expozici chemickým látkám, doc. MUDr. Daniela Pelclová, CSc., MUDr. Alexandr Fuchs, CSc., MUDr. Miroslava Hornychová, CSc., MUDr. Zdeňka Trávníčková, CSc., Jiřina Fridrichovská, prom. chem.). Data from the manufacturer of the substance / mixture, if available - information from registration dossiers.

Statement

The safety data sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.