Smart-Up Structure + Blanc

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 03/01/2023 Version: 1.0

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

1.1. Product identifier

Product form : Mixture
Product name : Smart-Up Structure + Blanc

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Premix used for formulation for construction products

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier
S.A. VICAT
Direction Vicat SYSNERGIE 4 Rue Aristide Bergès
FR– 38080 L'Isle d'Abeau
France
T +33 4 74 27 59 00
smart-up@vicat.fr - www.smartup-vicat.com

1.4. Emergency telephone number

No additional information available

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Skin Irrit. 2	H315
Eye Dam. 1	H318
STOT SE 3	H335
STOT RE 2	H373

Full text of hazard classes, H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

When premix comes into contact with the skin, when mixing concrete or mortar for example, or when premix is wet, a strongly alkaline solution is produced.
Inhalation :
Frequent inhalation of large quantities of premix dust over a long period increases the risk of the onset of respiratory disease.
Eyes :
Contact of premix (dry or wet) with the eyes may lead to serious eye injuries which are potentially irreversible.
Skin :
Premix may have an irritating effect on damp skin (by transpiration or ambient humidity) after prolonged contact. Prolonged contact of the skin with premix may lead to severe burning because these burns occur without pain, for example, working while kneeling on wet premix, including through trousers. Repeated contact between the skin and wet premix may also lead to contact dermatitis.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :

GHS05 GHS07 GHS08

Signal word (CLP) : Danger

Contains	:	Quartz (1% ≤ fine fraction < 10%)
Hazard statements (CLP)	:	H315 - Causes skin irritation. H318 - Causes serious eye damage. H335 - May cause respiratory irritation. H373 - May cause damage to organs through prolonged or repeated exposure.
Precautionary statements (CLP)	:	P102 - Keep out of reach of children. P261 - Avoid breathing dust. P280 - Wear eye protection, face protection, protective gloves, protective clothing. P302+P352 - IF ON SKIN: Wash with plenty of soap and water. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338+P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor. P312 - Call a POISON CENTRE or doctor if you feel unwell. P501 - Dispose of contents and container to an authorised waste collection point.

2.3. Other hazards

Other hazards which do not result in classification	:	In the case of atopic dispositions (immediate hypersensitivity type allergy, IgE-dependent) the reactogenic threshold is not subject to any limit value. Consequently, end users are kindly invited to check their ability to present this atopic disposition and cease any contact in case of immediate reaction. In any case wearing PPI during manipulation is a pre-requisite.

To our knowledge, contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

Component	
Portland Cement clinker, chemicals (65997-15-1)	PBT : Not applicable (inorganic substance) vPvB : Not applicable (inorganic substance)
Quartz (fine fraction < 1%) (14808-60-7)	PBT : Not applicable (inorganic substance) vPvB : Not applicable (inorganic substance)
Quartz (1% ≤ fine fraction < 10%) (14808-60-7)	PBT : Not applicable (inorganic substance) vPvB : Not applicable (inorganic substance)

To our knowledge, the mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

Component	
Portland Cement clinker, chemicals(65997-15-1)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605
Quartz (fine fraction < 1%)(14808-60-7)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605
Quartz (1% ≤ fine fraction < 10%)(14808-60-7)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Portland Cement clinker, chemicals	CAS-No.: 65997-15-1 EC-No.: 266-043-4	20 - 40	Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335
Quartz (fine fraction < 1%) substance with a Community workplace exposure limit	CAS-No.: 14808-60-7 EC-No.: 238-878-4	25 – 50	Not classified
Quartz (1% ≤ fine fraction < 10%) substance with a Community workplace exposure limit	CAS-No.: 14808-60-7 EC-No.: 238-878-4	10 – 15	STOT RE 2, H373

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : In case of massive inhalation : Move the affected person to the fresh air. The throat and nostrils should clear themselves. Consult a doctor if irritation occurs, or if latter discomfort, coughing or any other symptoms appear.

First-aid measures after skin contact : If the product is dry: Wipe off as much as possible. Rinse with plenty of water. If the product is humidified: Remove all contaminated clothing and footwear. Remove clothing, shoes, watches and other objects that have become contaminated and clean thoroughly before reuse. In case of irritation, redness or burns, consult a doctor.

First-aid measures after eye contact : Do not rub in order to avoid further damage to the cornea. If need be, remove contact lenses, then rinse immediately with copious amounts of clean water for at least 20 minutes, keeping the eyelids wide apart in order to eliminate any residue. If possible, use isotonic water (0.9% NaCL). Consult an occupational doctor or ophthalmologist.

First-aid measures after ingestion : On ingestion in large quantities: Do not induce vomiting. Rinse mouth out with water (only if the person is conscious). Immediately call a POISON CENTER/doctor.

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

Symptoms/effects after inhalation : Premix may irritate the throat and respiratory tract. Coughs, sneezing and respiratory discomfort may appear in circumstances where the limit value of occupational exposure is exceeded.

Symptoms/effects after skin contact : Dry premix in contact with slightly wet skin or exposure to wet or mixed premix may lead to thickening of the skin and the appearance of fissures or cracks. Prolonged contact combined with abrasions may cause severe burns.

Symptoms/effects after eye contact : Direct contact may damage the cornea due to rubbing, may cause immediate or subsequent irritation or inflammation. Larger quantities of dry premix or splashes of mixed premix may lead to consequences ranging from moderate irritation (conjunctivitis or blepharitis) to chemical burns and blindness.

Symptoms/effects after ingestion : Severe irritation or burns to the mouth, throat, oesophagus, and stomach. Nausea. Vomiting.

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

Treat symptomatically. If possible show this sheet, if not available show packaging or label.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : All extinguishing agents can be used.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Premix is neither combustible, nor explosive and will not aid or feed the combustion of other materials.

5.3. Advice for firefighters

Precautionary measures fire : Premix poses no fire-related hazards. No need for special protective equipment for fire-fighters.

Firefighting instructions : Prevent fire fighting water from entering the environment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Avoid contact with skin and eyes. Avoid breathing dust.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Do not allow product to spread into the environment. Do not discharge into drains or rivers.

6.3. Methods and material for containment and cleaning up

For containment : Clean up dry premix using methods that do not cause the dispersion of the dry product into the air, for example:
- suction cleaners (portable industrial strength, equipped with an effective air particle filter (HEPA filter) or some other equivalent technique).
Recover waste premix and place it in a closed container. Wait until it sets and becomes solid before disposing of it as indicated in section 13.

Methods for cleaning up : Wash contaminated area with large amounts of water.

Other information : After moistening, the klinker can be remove as for non-hazardous building waste premix.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid creating or spreading dust. Avoid contact with skin and eyes. Do not breathe dust. In case of insufficient ventilation, wear suitable respiratory equipment.
In order to limit the emission of dust: For premix in bags used in an open mixer: pour in the water first, followed by the premix. Do not pour from a great height and commence mixing slowly and regularly.

Hygiene measures : Do not eat, drink or smoke while handling premix in order to avoid all contact with the skin or mouth. Wash your hands immediately after handling premix or products containing premix. Remove clothing, shoes, watches and other contaminated objects and wash them separately and thoroughly before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Bulk premix must be stored in silos that are watertight, dry (with reduced internal condensation), clean and protected from all contamination.

Incompatible materials : Aluminium.

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Quartz (fine fraction < 1%) (14808-60-7)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Silica crystaline (Quartz)
IOEL TWA	0.05 mg/m³ (respirable dust)
Remark	(Year of adoption 2003)
Regulatory reference	SCOEL Recommendations

Quartz (1% ≤ fine fraction < 10%) (14808-60-7)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Silica crystaline (Quartz)
IOEL TWA	0.05 mg/m³ (respirable dust)
Remark	(Year of adoption 2003)
Regulatory reference	SCOEL Recommendations

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:
Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

Eye protection:
Handling of dry or mixed premix: Approved goggles or watertight goggles complying with NF EN 166

8.2.2.2. Skin protection

Skin and body protection:
Protective clothing (with elasticated cuffs and closed neck). Boots. Take care that mixed premix does not penetrate inside your boots. For work where kneeling in involved, waterproof knee-pads are required. As far as possible, avoid kneeling on fresh premix

Hand protection:
Protective gloves made from waterproof nitrile rubber or neoprene, using material containing little soluble Cr (VI), with a cotton lining. These gloves must be waterproof and resistant to wear and alkalis. The protective gloves to be used must comply with the specifications of the regulation 2016/425 and the resultant standard EN 374. Gloves are only effective as long as premix particles do not penetrate between the gloves and the skin. Breakthrough time (min) : 480. Always change damaged or soaked gloves immediately. Always have spare gloves in ready supply.

8.2.2.3. Respiratory protection

Respiratory protection:
Dust mask FFP2

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:
Air: Environmental exposure control for the emission of premix particles into air has to be in accordance with the available technology and regulations for the emission of general dust particles.
Water: Do not wash premix into sewage systems or into bodies of water, to avoid high pH. Above pH 9 negative ecotoxicological impacts are possible.
Soil and terrestrial environment: No special emission control measures are necessary for the exposure to the terrestrial environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Solid
Colour	:	White.
Appearance	:	Powder.
Odour	:	Odourless.
Odour threshold	:	Not available
Melting point	:	> 1250 °C
Freezing point	:	Not applicable
Boiling point	:	Not applicable
Flammability	:	The product is not flammable
Oxidising properties	:	Non oxidizing material according to EC criteria.
Explosive limits	:	Not applicable
Lower explosion limit	:	Not applicable
Upper explosion limit	:	Not applicable
Flash point	:	Not applicable (non-flammable solid)
Auto-ignition temperature	:	Not applicable
Decomposition temperature	:	Not applicable
pH	:	12 – 13
pH solution	:	Not available
Viscosity, kinematic	:	Not applicable
Viscosity, dynamic	:	Not applicable
Solubility	:	Water: 0.1 – 1.5 g/l Slightly soluble (20°C)
Partition coefficient n-octanol/water (Log Kow)	:	Not applicable
Partition coefficient n-octanol/water (Log Pow)	:	Not applicable
Vapour pressure	:	Not applicable
Vapour pressure at 50°C	:	Not available
Density	:	0.9 – 1.5 g/cm³ (Apparent specific gravity) - 2.75-3.20 g/cm³ (Absolute specific gravity)
Relative density	:	Not available
Relative vapour density at 20°C	:	Not applicable
Particle size	:	5 — 30 µm

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

To our knowledge, the product does not present any particular risk.

10.2. Chemical stability

The premix dry remains stable as long as it is stored correctly (see section 7) and compatible with most other building materials.
Moistened with water, the premix hardens into a stable mass that does not react in ordinary environments.

10.3. Possibility of hazardous reactions

Avoid contact with : Aluminium. (Formation of hydrogen in case of uncontrolled use in a spoiled premix).

10.4. Conditions to avoid

Moisture can cause premix to set (lump formation) and loss of product quality.

10.5. Incompatible materials

Acids. Ammonium salts. Aluminium and other non-noble metals.

10.6. Hazardous decomposition products

None, to our knowledge. The premix does not break down into dangerous sub-products and is not subject to polymerization.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	:	Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	:	Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	:	Not classified (Based on available data, the classification criteria are not met)
Skin corrosion/irritation	:	Causes skin irritation. pH: 12 – 13
Serious eye damage/irritation	:	Causes serious eye damage. pH: 12 – 13
Respiratory or skin sensitisation	:	Not classified. (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	:	Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	:	Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	:	Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	:	May cause respiratory irritation.
STOT-repeated exposure	:	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	:	Not classified (Technical impossibility to obtain the data)

Smart-Up Structure + Blanc	
Viscosity, kinematic	Not applicable

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	:	A priori the product does not present any hazard for the environment (LC50 aquatic toxicity is not yet determined). However, the addition of large amount of product in water may cause an increase in pH and therefore be toxic to aquatic organisms in certain circumstances.
Hazardous to the aquatic environment, short–term (acute)	:	Not classified (Based on available data, the classification criteria are not met)
Hazardous to the aquatic environment, long–term (chronic)	:	Not classified (Based on available data, the classification criteria are not met)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Smart-Up Structure + Blanc	
Partition coefficient n-octanol/water (Log Pow)	Not applicable
Partition coefficient n-octanol/water (Log Kow)	Not applicable
Bioaccumulative potential	Not applicable (inorganic substance).

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Component	
Portland Cement clinker, chemicals (65997-15-1)	PBT : Not applicable (inorganic substance) vPvB : Not applicable (inorganic substance)
Quartz (fine fraction < 1%) (14808-60-7)	PBT : Not applicable (inorganic substance) vPvB : Not applicable (inorganic substance)
Quartz (1% ≤ fine fraction < 10%) (14808-60-7)	PBT : Not applicable (inorganic substance) vPvB : Not applicable (inorganic substance)

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Product - residue or dry form spill : Induce the taking by adding water and dispose according to local legislation.
Product - slurries: Allow to cure, prevent its introduction into sewers, drainage networks or water courses (eg stream.) and dispose of according to local legislation.
Product - after addition of water, taking occurring: Dispose of in accordance with local legislation. Prevent its introduction into the drainage system for wastewater. Dispose of the hardened product as concrete waste. Given the inerting properties of concrete, its waste is not considered as hazardous waste. Registrations in the European Waste List: 10 13 14 (wastes from the manufacture of cement - concrete waste or concrete sludge) or 17 J01 01 (Waste from construction and demolition waste - concrete).

Additional information : Empty packaging completely and process according to local by-laws. Entries in the European waste catalogue: 15 01 01 (Paper waste and cardboard packaging). The user's attention is drawn to the possible existence of specific european, national or local regulations regarding disposal.

Ecology - waste materials : Do not allow to enter sewers, surface or groundwater.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated

ADR	IMDG	IATA	ADN	RID
14.2. UN proper shipping name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated

14.6. Special precautions for user

Overland transport
Not regulated

Transport by sea
Not regulated

Air transport
Not regulated

Inland waterway transport
Not regulated

Rail transport
Not regulated

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
PBT	Persistent Bioaccumulative Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
vPvB	Very Persistent and Very Bioaccumulative

Data sources : SDS of suppliers. ECHA (European Chemicals Agency). (1) Portland Cement Dust - Hazard assessment document EH75/7, UK Health and Safety Executive, 2006. Available from: http://www.hse.gov.uk/pubns/web/portlandcement.pdf.

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

(3) European Commission's Scientific Committee on Toxicology, Ecotoxicology and the Environment (SCTEE) opinion of the risks to health from Cr (VI) in cement (European Commission, 2002).
http://ec.europa.eu/health/archive/ph_risk/committees/sct/documents/out158_en.pdf.

(4) 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.

(5) 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) and 4th ed. EPA-821-R-02-013, US EPA, office of water, Washington D.C. (2002).

(6) 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) and 5th ed. EPA-821-R-02-012, US EPA, office of water, Washington D.C. (2002).

(7) 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.

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

(9) TNO report V8801/02, An acute (4-hour) inhalation toxicity study with Portland Cement Clinker CLP/GHS 03-2010-fine in rats, August 2010.

(10) TNO report V8815/09, Evaluation of eye irritation potential of cement clinker G in vitro using the isolated chicken eye test, April 2010.

(11) TNO report V8815/10, Evaluation of eye irritation potential of cement clinker W in vitro using the isolated chicken eye test, April 2010.

(12) Investigation of the cytotoxic and proinflammatory effects of cement dusts in rat alveolar macrophages, Van Berlo et al, Chem. Res. Toxicol, 2009 Sept; 22(9):1548-58.

(13) Cytotoxicity and genotoxicity of cement dusts in A549 human epithelial lung cells in vitro; Gminski et al, Abstract DGPT conference Mainz, 2008.

(14) Comments on a recommendation from the American Conference of governmental industrial Hygienists to change the threshold limit value for Portland cement, Patrick A. Hessel and John F. Gamble, EpiLung Consulting, June 2008.

(15) Exposure to Thoracic Aerosol in a Prospective Lung Function Study of Cement Production Workers; Noto, H, et al; Ann. Occup. Hyg, 2015, Vol. 59, No. 1, 4–24.

(16) MEASE, Metals estimation and assessment of substance exposure, EBRC Consulting GmbH for Eurometaux, http://www.ebrc.de/industrial-chemicals-reach/projects-and-references/mease.php.

(17) Occurrence of allergic contact dermatitis caused by chromium in cement. A review of epidemiological investigations, Kåre Lenvik, Helge Kjuus, NIOH, Oslo, December 2011.

(18) ECHA Support Questions and answers agreed with National Helpdesks. ID1695

May 2020. https://echa.europa.eu/es/support/qas-support/qas-agreed-with-national-helpdesks.

Full text of H- and EUH-statements:	
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
H315	Causes skin irritation.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Skin Irrit. 2	H315	Expert judgment
Eye Dam. 1	H318	On basis of test data
STOT SE 3	H335	Calculation method
STOT RE 2	H373	Calculation method

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.