COMMON CEMENTS CEM IV-P

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878
Issue date: 14/12/2023 Version: 1.0

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

1.1. Product identifier

Product form : Mixture
Name : COMMON CEMENTS CEM IV-P
UFI : CH00-X0PP-300H-4QMT
Other means of identification : • Common cements included in this SDS comply with standard NF EN 197-1. They can be found on the market with the following commercial names:
NATURAT CEM IV/A (P) 42,5 R CE CP2 NF

• All cements included in this SDS have a composition conforming to the following standard formula defined in Part D of Annex VIII of the CLP Regulation: Cement Standard Formula - 4 [Portland-pozzolana cement, Pozzolanic cement - Portland cements with two main constituents: clinker and pozzolan (natural or natural calcined pozzolan)]

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

Relevant identified uses

Use of the substance/mixture : Concrete, mortar, grout

1.3. Details of the supplier of the safety data sheet

S.A. VICAT
Direction Commerciale Ciments et Liants Hydrauliques -
4 Rue Aristide Bergès
FR 38080 L'Isle d'Abeau
France
T +33 4 74 27 59 00 , F +33 4 74 18 41 15
fds.ciment@vicat.fr

1.4. Emergency telephone number

Country/Area	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals-24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
Malta	Medicines & Poisons Info Office	Mater Dei Hospital Msida MSD 2090 Msida	112 +356 2545 6508	

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

Adverse physicochemical, human health and environmental effects

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

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS05 GHS07

Signal word (CLP) : Danger

Contains : Portland Cement clinker, chemicals;Flue dust, portland cement

Hazard statements (CLP) : H315 - Causes skin irritation.
H318 - Causes serious eye damage.
H335 - May cause respiratory irritation.

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.

EUH-statements : EUH203 - Contains chromium (VI). May produce an allergic reaction.

2.3. Other hazards

Other hazards which do not result in classification : The product contains chromate reducing agent (Iron (II) sulfate or Tin sulphate). As a result, the content of soluble chromium (VI) is less than 0,0002 %. If the storage conditions are not appropriate or the storage period is exceeded, the effectiveness of the reducing agent can diminish, and the cement can become skin sensitizing. 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

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 %

SECTION 3: Composition/information on ingredients

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	41 - 94	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT SE 3, H335
Natural (calcined) pozzolana	CAS-No.: 999999-99-4 EC-No.: 310-127-6	5.5 - 55	Not classified
Calcium sulfate	CAS-No.: 7778-18-9 EC-No.: 231-900-3 REACH-no: 01-2119444918-26	0 - 8	Not classified
Inorganic natural mineral materials	CAS-No.: 999999-99-4 EC-No.: 310-127-6	0 - 5	Not classified
Flue dust, portland cement	CAS-No.: 68475-76-3 EC-No.: 270-659-9 REACH-no: 01-2119486767-17	0 - 5	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT SE 3, H335
Iron (II) sulfate	CAS-No.: 7720-78-7 EC-No.: 231-753-5 EC Index-No.: 026-003-00-7 REACH-no: 01-2119513203-57	0 - 1	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Eye Irrit. 2, H319 Skin Irrit. 2, H315
Tin sulphate	CAS-No.: 7488-55-3 EC-No.: 231-302-2 REACH-no: 01-2119560591-39	0 - 0.1	Acute Tox. 4 (Inhalation), H332 (ATE=1.5 mg/l/4h) Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT RE 1, H372 Aquatic Chronic 3, H412

Comments : Tin sulphate can be used exceptionally as an alternative to iron (II) sulphate
Specific concentration limits LCS: not concerned
Multiplication factor M: not concerned
Acute toxicity estimate (ATE): not relevant
Nanoparticle material: not concerned

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 general : No personal protective equipment is needed for first aid responders. First aid workers should avoid contact with wet cement or wet cement containing mixtures.

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 cement is dry : Wipe off as much as possible. Rinse with plenty of water. If the cement is mixed : 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 : Cement 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. Repeated inhalation of dust of Common cements over a long period of time increases the risk of developing lung diseases.

Symptoms/effects after skin contact : Dry cement in contact with slightly wet skin or exposure to wet or mixed cement 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 cement or splashes of mixed cement 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 : Cement is neither combustible, nor explosive and will not aid or feed the combustion of other materials.

5.3. Advice for firefighters

Precautionary measures fire : Cement 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

For non-emergency personnel

Protective equipment : Concerning personal protective equipment to use, see section 8. See Section 7 for information on safe handling.

Emergency procedures : Avoid contact with skin, eyes and clothing. Avoid breathing dust.

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	:	Collect the spillage in a dry state if possible. Dry cement: Use clean-up methods such as vacuum clean-up or vacuum extraction (industrial portable units, equipped with high efficiency air filters (EPA and HEPA filters, EN 1822-1) or equivalent technique) which do not cause airborne dispersion. Never use compressed air. Alternatively, wipe up the dust by mopping, wet brushing or by using water sprays or hoses (fine mist to avoid that the dust becomes airborne) and remove slurry. If not possible, remove by slurring with water (see wet cement). When wet cleaning or vacuum cleaning is not possible and only dry cleaning with brushes can be done, ensure that the workers wear the appropriate personal protective equipment and prevent dust from spreading. Avoid inhalation of cement and contact with skin. Place spilled materials into a container. Solidify before disposal as described under Section 13. Wet cement: Clean up wet cement and place in a container. Allow material to dry and solidify before disposal as described under Section 13.
Methods for cleaning up	:	Wash contaminated area with large amounts of water.
Other information	:	Dispose of at a licensed waste collection centre. After setting, the cement mortar can be removed like any other non-hazardous building waste. The cement mortar hardens in around 2 to 4 hours after it has been mixed with water.

6.4. Reference to other sections

For personal protective equipment, see section 8. For disposal of solid materials or residues refer to section 13 : "Disposal considerations".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	:	Avoid creating or spreading dust. Avoid contact with skin, eyes and clothing. Do not sweep. Use dry clean-up methods such as vacuum clean-up or vacuum extraction, which do not cause airborne dispersion. . Do not breathe dust. In case of insufficient ventilation, wear suitable respiratory equipment. In order to limit the emission of dust for cement in bags used in an open mixer: pour in the water first, followed by the cement. Do not pour from a great height and commence mixing slowly and regularly.
Hygiene measures	:	Do not eat, drink or smoke while handling cement in order to avoid all contact with the skin or mouth. Wash your hands immediately after handling cement or products containing cement. Remove clothing, shoes, watches and other contaminated objects and wash them separately and thoroughly before reuse. Immediately after working with cement or cement-containing materials, workers should wash or eventually take a shower.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	:	Control of soluble Cr (VI): In the case of cement treated with Cr (VI) reducing agent according to the regulations referred to in section 15, the effectiveness of the reducing agent diminishes with time. This is why bags of cement and/or their accompanying documents indicate the period during which the manufacturer has determined that the soluble Cr (VI) content is maintained by the reducing agent under the regulatory limit of 0.0002%, in accordance with EN 196.10. The conditions of storage necessary to retain the effectiveness of the reducing agent are also indicated.
Storage conditions	:	Bulk cement must be stored in silos that are watertight, dry (with reduced internal condensation), clean and protected from all contamination. Cement in bags must be stored with the bags closed, off the ground, and in a cool and dry atmosphere, protected from excessive draught which would lead to a deterioration of the quality of the product. Engulfment hazard: To prevent engulfment or suffocation, do not enter a confined space, such as a silo, bin, bulk truck, or other storage container or vessel that stores or contains cement without taking the proper security measures. Cement can build up or adhere to the walls of a confined space. The cement can release, collapse or fall unexpectedly.
Special rules on packaging	:	Do not use aluminium containers for the storage or transport of wet cement containing mixtures due to incompatibility of the materials.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

National occupational exposure and biological limit values

Calcium sulfate (7778-18-9)	
Ireland - Occupational Exposure Limits	
Local name	Calcium sulphate
OEL TWA	10 mg/m³
Remark	Advisory OELV (Advisory Occupational Exposure Limit Values)
Regulatory reference	Chemical Agents Code of Practice 2024

Portland Cement clinker, chemicals (65997-15-1)	
Ireland - Occupational Exposure Limits	
Local name	Portland Cement [Cement (Portland)]
OEL TWA	1 mg/m³ R (Respirable Fraction)
Remark	Advisory OELV (Advisory Occupational Exposure Limit Values)
Regulatory reference	Chemical Agents Code of Practice 2024

8.2. Exposure controls

Appropriate engineering controls

Appropriate engineering controls:
Measures to reduce generation of dust and to avoid dust propagating in the environment such as dedusting, exhaust ventilation and dry clean-up methods which do not cause airborne dispersion.

Personal protection equipment

Eye and face protection

Eye protection:
Handling of dry or mixed cement: Approved goggles or watertight goggles complying with ISO 16321-1

Skin protection

Skin and body protection:
Protective clothing (with elasticated cuffs and closed neck). Boots. Particular care should be taken to ensure that wet cement does not enter the boots. In some circumstances, such as when laying concrete or screed, waterproof trousers or kneepads are necessary. As far as possible, avoid kneeling on mortar or fresh concrete (eg: when concreting a floor, laying screed, ...)

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. Gloves are only effective as long as cement particles do not penetrate between the gloves and the skin. The protective gloves to be used must comply with the specifications of the regulation 2016/425 and the resultant standard ISO 374-1. Breakthrough time (min) : 480. Always change damaged or soaked gloves immediately. Always have spare gloves in ready supply.

Respiratory protection

Respiratory protection:
When a person is potentially exposed to dust levels above exposure limits, use appropriate respiratory protection. The type of respiratory protection should be adapted to the dust level and conform to the relevant EN standard (EN 149) or national standard (dust mask FFP2).

Thermal hazards

Thermal hazard protection:
Not applicable.

Environmental exposure controls

Environmental exposure controls:

Air: Environmental exposure control for the emission of cement 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 cement 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	:	Grey.
Appearance	:	Dry cement is a fine inorganic substance (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.
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	:	Not available
pH solution	:	11 – 13.5 (Aqueous solution Water/Powder 1:2) (20°C)
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) - 2.8-3.2 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

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

When mixed with water, cements will harden into a stable mass that is not reactive in normal environments.

10.2. Chemical stability

Dry cements are stable as long as they are properly stored (see Section 7) and compatible with most other building materials. They should be kept dry. . Wet cement is alkaline and incompatible with acids, with ammonium salts, with aluminium or other non-noble metals. Cement dissolves in hydrofluoric acid to produce corrosive silicon tetrafluoride gas. Cement reacts with water to form silicates and calcium hydroxide. Silicates in cement react with powerful oxidizers such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, and oxygen difluoride.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Damp may cause cement to harden (formation of lumps) and a loss of quality of the product.

10.5. Incompatible materials

Acids. Ammonium salts. Aluminium and other non-noble metals. Uncontrolled use of aluminium powder in wet cement should be avoided as hydrogen is produced.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Cements do not break down into dangerous sub-products and are 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)

COMMON CEMENTS CEM IV-P	
LD50 dermal rabbit	> 2000 mg/kg (Published data)

Skin corrosion/irritation : Causes skin irritation.
Additional information : Cement in contact with wet skin may cause thickening, cracking or fissuring of the skin. Prolonged contact in combination with abrasion may cause severe burns. Some individuals may develop eczema upon exposure to wet cement dust caused by the high pH which induces irritant contact dermatitis after prolonged contact.

Serious eye damage/irritation : Causes serious eye damage.
Additional information : Portland cement clinker cause a mixed picture of corneal effects and the calculated irritation index was 128. Common cements contain varying quantities of Portland cement clinker, fly ash, blast furnace slag, gypsum, natural pozzolans, burnt shale, silica fume and limestone. Direct contact with cement may cause corneal damage by mechanical stress, immediate or delayed irritation or inflammation. Direct contact by larger amounts of dry cement or splashes of wet cement may cause effects ranging from moderate eye irritation (e.g. conjunctivitis or blepharitis) to chemical burns and blindness.

Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)
Additional information : Some individuals may develop eczema upon exposure to wet cement dust, caused by an immunological reaction to soluble Cr (VI) which elicits allergic contact dermatitis. The response may appear in a variety of forms ranging from a mild rash to severe dermatitis.
If the cement contains a soluble Cr (VI) reducing agent and as long as the mentioned period of effectiveness of the chromate reduction is not exceeded, an allergic sensitising effect is not expected and a labelling with H317 is not necessary.

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)
Additional information : No causal association has been established between Portland cement exposure and cancer. The epidemiological literature does not support the designation of Portland cement as a suspected human carcinogen.
Portland cement is not classifiable as a human carcinogen (According to ACGIH A4: Agents that cause concern that they could be carcinogenic for humans but which cannot be assessed conclusively because of a lack of data. In vitro or animal studies do not provide indications of carcinogenicity that are sufficient to classify the agent with one of the other notations.).

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)
Additional information : No evidence from human experience.
STOT-single exposure : May cause respiratory irritation.

Additional information : Cement dust may irritate the throat and respiratory tract. Coughing, sneezing, and shortness of breath may occur following exposures in excess of occupational exposure limits.
Overall, the pattern of evidence clearly indicates that occupational exposure to cement dust has produced deficits in respiratory function. However, evidence available at the present time is insufficient to establish with any confidence the dose-response relationship for these effects.

Portland Cement clinker, chemicals (65997-15-1)	
STOT-single exposure	May cause respiratory irritation.

Flue dust, portland cement (68475-76-3)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

Additional information : States of health aggravated by exposure :
Repeated exposure to inhalable dust in excess of the limit value for occupational exposure may cause coughs, sneezing and respiratory discomfort and the appearance of chronic obstructive bronco pulmonary disorder (COPD).
Inhaling cement dust may aggravate a pre-existing disease of the respiratory tract and/or pathologies such as emphysema or asthma and/or other pre-existing conditions linked to the eyes or skin.
No chronic effects were observed at low concentrations.

Aspiration hazard : Not classified (Technical impossibility to obtain the data)

COMMON CEMENTS CEM IV-P	
Viscosity, kinematic	Not applicable

11.2. Information on other hazards

Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties : 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 %

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : A priori the product presents no danger to the environment (LC50 aquatic toxicity has not yet been determined). However, the addition of large quantities of cement to water may cause an increase in pH and therefore prove to be toxic to aquatic organisms in some circumstances. After hardening, cement presents no toxicity risks.

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

COMMON CEMENTS CEM IV-P	
Persistence and degradability	Not biodegradable.

12.3. Bioaccumulative potential

COMMON CEMENTS CEM IV-P	
Partition coefficient n-octanol/water (Log Pow)	Not applicable
Partition coefficient n-octanol/water (Log Kow)	Not applicable

COMMON CEMENTS CEM IV-P	
Bioaccumulative potential	Not applicable (inorganic substance).

12.4. Mobility in soil

COMMON CEMENTS CEM IV-P	
Ecology - soil	Not applicable.

12.5. Results of PBT and vPvB assessment

Component	
Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	Calcium sulfate (7778-18-9), Inorganic natural mineral materials (999999-99-4), Iron (II) sulfate (7720-78-7), Tin sulphate (7488-55-3)(1), Portland Cement clinker, chemicals (65997-15-1), Flue dust, portland cement (68475-76-3), Natural (calcined) pozzolana (999999-99-4)
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	Calcium sulfate (7778-18-9), Inorganic natural mineral materials (999999-99-4), Iron (II) sulfate (7720-78-7), Tin sulphate (7488-55-3)(1), Portland Cement clinker, chemicals (65997-15-1), Flue dust, portland cement (68475-76-3)

(1) Substance(s) in concentration below 0.1 % and displayed on a voluntary basis

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : None known.

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations :

Product - cement that has exceeded its shelf life
EWC entry: 10 13 99 (wastes not otherwise specified)
(and when demonstrated that it contains more than 0.0002% soluble Cr (VI)): shall not be used/sold other than for use in controlled closed and totally automated processes or should be recycled or disposed of according to local legislation or treated again with a reducing agent.

Product - unused residue or dry spillage
EWC entry: 10 13 06 (Other particulates and dust)
Pick up dry unused residue or dry spillage as is. Mark the containers. Possibly reuse depending upon shelf life considerations and the requirement to avoid dust exposure. In case of disposal, harden with water and dispose according to “Product – after addition of water, hardened”

Product – slurries
Allow to harden, avoid entry in sewage and drainage systems or into bodies of water (e.g. streams) and dispose of as explained below under “Product - after addition of water, hardened”.

Product - after addition of water, hardened
Dispose of according to the local legislation. Avoid entry into the sewage water system. Dispose of the hardened product as concrete waste. Due to the inertisation, concrete waste is not a dangerous waste.
EWC entries: 10 13 14 (waste from manufacturing of cement – waste concrete or concrete sludge) or 17 01 01 (construction and demolition wastes - 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.
Ecological waste information	:	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 applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Inland waterway transport

Not applicable

Rail transport

Not applicable

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

EU-Regulations

Other information, restriction and prohibition regulations : Cement is a mixture according to REACH and is not subject to registration. Cement clinker is exempt from registration (Art 2.7 (b) and Annex V.10 of REACH). The marketing and use of cement is subject to a restriction on the content of soluble Cr (VI) (REACH Annex XVII point 47 Chromium VI compounds):

1. Cement and cement-containing mixtures shall not be placed on the market, or used, if they contain, when hydrated, more than 2 mg/kg (0.0002 %) soluble chromium VI of the total dry weight of the cement.
2. If reducing agents are used, then without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances and mixtures, suppliers shall ensure before the placing on the market that the packaging of cement or cement-containing mixtures is visibly, legibly and indelibly marked with information on the packing date, as well as on the storage conditions and the storage period appropriate to maintaining the activity of the reducing agent and to keeping the content of soluble chromium VI below the limit indicated in paragraph 1.
3. By way of derogation, paragraphs 1 and 2 shall not apply to the placing on the market for, and use in, controlled closed and totally automated processes in which cement and cement-containing mixtures are handled solely by machines and in which there is no possibility of contact with the skin.

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)		
Reference code	**Applicable on**	**Entry title or description**
47.	COMMON CEMENTS CEM IV-P	Chromium VI compounds

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 (2024/590)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 2024/590 on substances that deplete the ozone layer)

Council Regulation (EC) for the control of dual-use items

Contains no substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items

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)

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:	
ACGIH	American Conference of Governement Industrial Hygienists
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DNEL	Derived-No Effect Level
LD50	Median lethal dose
IMDG	International Maritime Dangerous Goods
Log Koc	adsorption coefficient
OEL TWA	Occupational exposure limits Time Weighted Average
Pow (log)	n-octanol/water partition coefficient
PNEC	Predicted no-effect concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
PBT	Persistent Bioaccumulative Toxic
vPvB	Very Persistent and Very Bioaccumulative

Data sources : (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:	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 1	Specific target organ toxicity – Repeated exposure, Category 1
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H372	Causes damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.
EUH203	Contains chromium (VI). May produce an allergic reaction.

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