SAFETY DATA SHEET

DATE OF ISSUE: 16.10.2024
DATE OF REVISION: -
VERSION: 1

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier:

Portland-slag cement EN 197-1 – CEM II/A-S 42,5 R	UFI: AC00-H0H3-H006-G9V7
Portland-limestone cement EN 197-1 CEM II/B-LL 32,5R	UFI: V110-K018-Y005-S1HR
Composite-portland cement EN 197-1 – CEM II/B-M (S-LL) 42,5 N	UFI: XY00-20AV-N00N-4PXP
Blast furnace cement EN 197-1 – CEM III/A 32,5 N	UFI: FS00-10Y3-100P-T0SJ
Moderately sulphate-resistant blast furnace cement MSZ 4737-1 – CEM III/A 32,5 R-MSR	UFI: MM00-10K9-E00P-GAME
Blast furnace cement EN 197-1 CEM III/B 32,5 N-LH/SR	UFI: 6 Q00-J08P-R005-4P6G

1.2. Relevant identified uses of the substance or mixture and uses advised against:
Portland cement for the manufacturing of concrete, reinforced concrete, mortars, plasters and other construction products. For industrial, consumer, professional use.

1.3. Details of the supplier of the safety data sheet:

Information about the manufacturer/distributor:
Holcim Magyarország Kft.
7953 Királyegyháza, Cement utca 1.
Tel.: +36 73 500 900

1.3.1. Responsible person: Gábor Kiss
E-mail: g.kiss@holcim.com

1.4. Emergency telephone number:
Egészségügyi Toxikológiai Tájékoztató Szolgálat (ETTSZ)
1097 Budapest, Albert Flórián út 2-6.
Tel.: +36 1 476 6464 (0-24 h)

SECTION 2: HAZARDS IDENTIFICATION

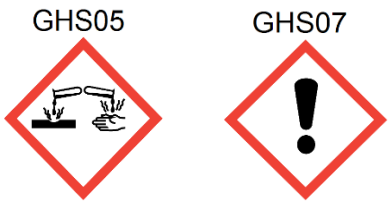
2.1. Classification of the substance or mixture:

Classification according to Regulation (EC) No 1272/2008 (CLP):
Skin corrosion/irritation, Hazard Category 2 – H315
Sensitisation - Skin, hazard category 1 – H317
Serious eye damage/eye irritation, Hazard Category 1 – H318
Specific target organ toxicity – Single exposure, Hazard Category 3, Respiratory tract irritation – H335

Hazard statements:
H315 – Causes skin irritation.
H317 – May cause an allergic skin reaction.
H318 – Causes serious eye damage.
H335 – May cause respiratory irritation.

2.2. Label elements:

Components that define the hazards: Portland cement clinker; Flue dust, portland cement



DANGER

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:
P102 – Keep out of reach of children.
P280 – Wear protective gloves/protective clothing/eye protection/face protection.
P261 – Avoid breathing dust/fume/gas/mist/vapours/spray.
P302 + **P352** – IF ON SKIN: Wash with plenty of water and soap.
P333 + **P313** – If skin irritation or rash occurs: Get medical advice/attention.
P304 + **P340** + **P312** – IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
P305 + **P351** + **P338** + **P310** – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
P501 – Dispose of contents/container in accordance with local regulations.

2.3. Other hazards:
The product has no other known specific hazards for human or environment.
Results of PBT and vPvB assessment: Cement does not meet the criteria for PBT (bioaccumulative and toxic) or vPvB (very persistent and very bioaccumulative) according to Annex XIII to REACH (Regulation (EC) No. 1907/2006).
Endocrine disrupting property: Based on available data, does not contain endocrine disruptors.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. **Substances:**
Not applicable.

3.2. **Mixtures:**

Description	CAS number	EC number / ECHA list number	REACH registration number	**Conc. (%)*** **	Classification according to Regulation (EC) No 1272/2008 (CLP)		
					Pictogram, signal word code(s)	Hazard class and category code(s)	Hazard statement code(s)
Portland cement clinker*/**	65997-15-1	266-043-4	-	20–94	GHS05 GHS07 Danger	Skin Irrit. 2 Eye Dam. 1 Skin Sens. 1 STOT SE 3	H315 H318 H317 H335
Calcium carbonate / Limestone*/**	1317-65-3	215-279-6	-	0–35	-	not classified	-
Flue dust, portland cement / Bypass dust*	68475-76-3	270-659-9	01-2119486767-17	0–1.7	GHS05 GHS07 Danger	Skin Irrit. 2 Eye Dam. 1 Skin Sens. 1 STOT SE 3	H315 H318 H317 H335
Anhydrite / Calcium sulphate / REA Gips*/**	7778-18-9	231-900-3	01-2119444918-26	3–6	-	not classified	-
Slags, ferrous metal, blast furnace*	65996-69-2	266-002-0	01-2119487456-25	0–80	-	not classified	-
Iron (II) sulfate Index number: 026-003-00-7	7720-78-7	231-753-5	-	0–0.5	GHS07 Warning	Acute Tox. 4 Eye Irrit. 2 Skin Irrit. 2	H302 H319 H315

*: Classification specified by the manufacturer; the substance is not listed in Annex VI of the Regulation (EC) No 1272/2008.
**: Substance with a permissible limit value in workplace
***: The composition of each cement types meets the requirements of the MSZ EN 197-1:2011 standard

Slags, ferrous metal, blast furnace (CAS: 65996-69-2) (UVCB) contains substances that have occupational exposure limit value (see Section 8.1):
Aluminium oxide (CAS: 1344-28-1)
Magnesium oxide (CAS: 1309-48-4)
Calcium oxide (CAS: 1305-78-8)
Manganese and its inorganic salts (CAS: 7439-96-5)
Sulphur dioxide (CAS: 7446-09-5)

Specific concentration limits:
Iron (II) sulfate (CAS: 7720-78-7):
Skin Irrit. 2; H315: 25 % ≤ C < 100 %

For the full text of hazard statements, see Section 16.

SECTION 4: FIRST AID MEASURES

4.1. **Description of first aid measures:**

General information: No personal protective equipment is required for first aiders. First aid personnel should avoid contact with wet cement or wet cement mixtures.

INGESTION:

Measures:

- Do not induce vomiting.
- If the person is conscious, wash their mouth with water and give them plenty of water to drink.
- Get medical attention immediately or contact a Poison Control Centre.

INHALATION:

Measures:

- Take the victim into fresh air.
- Dust from the throat and nostrils should be removed spontaneously.
- Contact a physician if irritation persists or develops later, or if discomfort, cough, or other symptoms persist.
-

SKIN CONTACT:

Measures:

- For dry cement, remove and wash with plenty of water.
- For wet cement, wash your skin with plenty of water.
- Take off all contaminated clothes, shoes, watches, etc., and thoroughly clean before reusing.
- In case of complaints (irritation), obtain medical help.
-

EYE CONTACT:

Measures:

- Do not rub your eyes.
- Flush with water holding eyelids apart (for at least 45 minutes).
- If possible, use isotonic water (0.9 % NaCl).
- Contact an occupational medicine specialist or an ophthalmologist.

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

Eyes: Eye contact with cement (dry or wet) can cause serious and potentially irreversible damage.
Skin: Cement may have an irritating effect on damp skin (due to perspiration or moisture). Skin contact with wet cement can cause irritation which may lead to dermatitis or severe injuries.
Inhalation: Repeated inhalation of ordinary cement powder over a long period of time increases the risk of developing lung diseases.

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

When contacting a physician, take this SDS with you.

SECTION 5: FIREFIGHTING MEASURES

5.1. **Extinguishing media:**

5.1.1. **Suitable extinguishing media:**

Choose extinguishing media depending on surrounding fire.

5.1.2. **Unsuitable extinguishing media:**

No unsuitable extinguishing media known.

5.2. **Special hazards arising from the substance or mixture:**

The product is not flammable, explosive or combustible when mixed with water, either in its transport state or in its ready-to-use form.

5.3. **Advice for firefighters:**

No special precautions required since the cement does not involve fire hazards.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. **Personal precautions, protective equipment and emergency procedures:**

6.1.1. **For non-emergency personnel:**
Allow only well-trained experts wearing suitable protective clothing to abide in the field of accident.
Wear appropriate personal protective equipment (see Section 8).
Follow the tips for safe handling and use in Section 7.

6.1.2. **For emergency responders:**
Wear appropriate personal protective equipment (see Section 8).
Follow the tips for safe handling and use in Section 7.
No emergency procedures are required.
However, respiratory protection is required in situations with high dust levels.

6.2. **Environmental precautions:**
Dispose of the spillage and the resulting waste according to the applicable environmental regulations. Do not allow the product and the resulting waste to enter sewers/soil/surface or ground water. Notify the respective authorities in accordance with local law in the case of environmental pollution immediately.

6.3. **Methods and material for containment and cleaning up:**
Collect spilled cement in dry state, if possible.
Dry cement:
Use dry cleaning methods such as vacuum cleaning or extraction (equipped with high efficiency air filters (EPA and HEPA filters). If this is not possible, remove it by cleaning with water (see wet cement).
Wet cement:
Collect the wet cement mechanically, let to set on a film or in suitable container and dispose of in accordance with Section 13.

6.4. **Reference to other sections:**
For further and detailed information see Sections 7, 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1. **Precautions for safe handling:**
Observe conventional hygiene precautions.
Do not handle or store near food and drink or smoked products.
Follow the recommendations in Section 8.
Lifting bags of cement can lead to stiff muscles and strains in the back, arms, shoulders and legs. Careful handling is required, lift the product in a suitable and appropriate manner.
Technical measures:
Avoid generation of dust.
When using a bagged product and open mixing equipment, the water should be poured first and then the dry cement should be carefully added. Keep the filling height low. Run the mixer slowly. See section 6.3 for the collection of spilled dry cement.
Precautions against fire and explosion:
No special measures required.

7.2. **Conditions for safe storage, including any incompatibilities:**
Technical measures and storage condition:
Keep in the original container.
Bulk cement should be stored in waterproof, dry (i.e. with minimized internal condensation), clean, and protected from contamination silos.
To prevent swallowing (burial) or suffocation, do not enter an enclosed space, such as a silo, hopper, bulk carrier, or other container or storage vessel that stores or contains cement without taking appropriate

security measures. Cement can build up or stick to the walls of an enclosed space. Cement can be released, collapsed or accidentally dropped.
Packaged products must be stored in closed bags, without contact with the ground, in dry and cool places, and protected from excessive current to avoid degradation of quality.
The bags must be stacked in a stable manner.
Incompatible materials: See Section 10.5.
Packaging material: No special prescriptions.

7.3. Specific end use(s):
Soluble Cr (VI) control: for cements not containing chromium as reducing agent, the water-soluble chromium (VI) content of less than 0,0002 % cannot be guaranteed, so that irritation of the skin cannot be excluded in case of contact with the cement.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters:

Occupational exposure limit values (Commission Directive (EC) No 2000/39 of 8 June 2000):
Calcium oxide (respirable fraction) (CAS: 1305-78-8): 8 hours: 1 mg/m³; Short-term: 4 mg/m³
Sulphur dioxide (CAS: 7446-09-5): 8 hours: 1.3 mg/m³, 0.5 ppm; Short-term: 2.7 mg/m³, 1 ppm

Slags, ferrous metal, blast furnace (CAS: 65996-69-2):

PNEC values		
Compartment	Value	Note(s)
Freshwater	5 g/l	no notes
Marine water	0.5 g/l	no notes
Freshwater sediment	no data	no notes
Marine water sediment	no data	no notes
Sewage Treatment Plant (STP)	10 g/l	no notes
Intermittent release	5 g/l	no notes
Secondary poisoning	no data	no notes
Soil	1000 mg/kg	no notes

Iron (II) sulfate monohydrate (CAS: 13463-43-9):

DNEL values		**Oral exposure**		**Dermal exposure**		**Inhalative exposure**	
		Short term (acute)	Long term (chronic)	Short term (acute)	Long term (chronic)	Short term (acute)	Long term (chronic)
Consumer	Local	no data	no data	no data	no data	no data	no data
	Systemic	no data	no data	no data	no data	no data	no data
Worker	Local	no data	no data	no data	no data	no data	no data
	Systemic	no data	no data	no data	2.8 mg/kg bw/day	no data	no data

PNEC values:
Intermittent release – sediment: 49.5 g/kg (Fe)

8.2. Exposure controls:
In case of a hazardous material with no controlled concentration limit it is the employer's duty to keep concentration levels down to a minimum achievable by existing scientific and technological means, where the hazardous substance poses no harm to workers.

8.2.1. **Appropriate engineering controls:**
In pursuance of work is proper foresight needed to avoid spilling onto clothes and floors and to avoid contact with eyes and skin.
Measures to reduce the generation of dust and to prevent the spread of dust in the environment such as dust removal, exhaust ventilation and dry cleaning methods that do not cause dispersion into the air.

8.2.2. **Individual protection measures, such as personal protective equipment:**
Avoid contact with skin and eyes.
Avoid kneeling in mortar or fresh concrete whenever possible.
Do not eat, drink, or smoke when using this product.
Wash hands before breaks and at the end of the work. In certain cases, showering is also necessary to remove stuck cement dust.

1. **Eye/face protection:** If there is a risk of dust generation or splashes, use appropriate protective glasses (EN ISO 16321-1:2022; EN 166).
2. **Skin protection:**
    a. **Hand protection:** Use appropriate, waterproof, wear and alkali resistant protective gloves (QL 1,5 EN 374, EN 420:2003).
    b. **Other:** If necessary, alkali-resistant waterproof protective clothing (e.g. TYCHEM Type C protective clothing - EN 368, EN 369, EN 463, EN 468, EN 1073-2, EN 14126) should be worn. Immediately change soaked clothing. Wear closed, long-sleeved protective clothing and closed footwear. Special care must be taken to ensure that wet cement does not get into the boots. The use of a skin care product is particularly recommended after work.
3. **Respiratory protection:** If exposure limit values are exceeded (e.g. during mixing), wear particulate filter mask s (e.g. FFP-1 respirator complying with EN 149:2002 or 3M 6200 half mask with 3M 2135 filter cartridge and complying with EN 143:2000).
4. **Thermal hazards:** No thermal hazards known.

8.2.3. **Environmental exposure controls:**
Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
The requirements detailed in Section 8 assume skilled work under normal conditions and usage of the product for appropriate aims. If conditions differ from normal or work is carried out under extreme conditions, an expert's advice is necessary before deciding upon further protective measures.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. **Information on basic physical and chemical properties:**

Parameter	Value / Test method / Remarks
1. Physical state	finely crushed solid inorganic powder
2. Colour	grey or white
3. Odour, odour threshold	odourless
4. Melting point/freezing point	no data*
5. Boiling point or initial boiling point and boiling range	not applicable since under normal atmospheric conditions its melting point is > 1250 °C
6. Flammability	not applicable
7. Lower and upper explosion limit	not applicable
8. Flash point	not applicable
9. Auto-ignition temperature	no data*
10. Decomposition temperature	not applicable, as no organic peroxide is present
11. pH	11 – 13.5 (20 °C in water, water-solid ratio 1:2)
12. Kinematic viscosity	not applicable
13. Solubility in water in other solvents	low (0.1 – 1.5 g/l) no data*
14. Partition coefficient n-octanol/water (log value)	not applicable
15. Vapour pressure	not applicable, melting point is > 1250 °C
16. Density and/or relative density	bulk density: 2.75-3.20 apparent density: 0.9-1.5 g/cm^3
17. Relative vapour density	not applicable, melting point is > 1250 °C
18. Particle characteristics	no data*

9.2. Other information:

9.2.1. **Information with regard to physical hazard classes:**
Explosive properties: Not explosive, not a pyrotechnic product. No gas evolution or self-sustaining exothermic chemical reaction.
Oxidising properties: Not applicable, cement has no oxidising properties.

9.2.2. **Other safety characteristics:**
No other characteristics available.

*: The manufacturer did not carry out any tests on this parameter for the product or the results of the tests are not available at the time of publication of the data sheet, or the property is not applicable for the product.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity:
When mixed with water, the cements will cure to a stable mass that is not reactive under normal media.

10.2. Chemical stability:
Dry cements are stable as long as they are stored properly (see Section 7).

10.3. Possibility of hazardous reactions:
No hazardous reactions known.

10.4. Conditions to avoid:
Wet conditions during storage can cause lumps and loss of product quality.

10.5. Incompatible materials:
Uncontrolled use of aluminium powder in wet cement should be avoided as hydrogen is produced.

10.6. Hazardous decomposition products:
No hazardous decomposition products known.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008:
Acute toxicity: Based on available data, the classification criteria are not met.
Skin corrosion/irritation: Causes skin irritation.
Serious eye damage/irritation: Causes serious eye damage.
Respiratory or skin sensitisation: May cause an allergic skin reaction.
Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.
STOT-single exposure: May cause respiratory irritation.
STOT-repeated exposure: Based on available data, the classification criteria are not met.
Aspiration hazard: Based on available data, the classification criteria are not met.

11.1.1. **Summaries of the information derived from the test conducted:**
No data available.

11.1.2. **Relevant toxicological properties:**
Acute toxicity:
Limit test, rabbit, 24-hour contact, 2000 mg/kg body weight - no lethality.
Inhalation: limit test, rat, 5 g/m^3, no acute toxicity. The study was conducted with Portland cement clinker, the main component of cement.
Ingestion: In animal studies, cement powder did not cause acute oral toxicity.
Serious eye damage/irritation:
The cement clinker caused a combined picture of corneal effects, and the calculated irritation rate was 128. Direct contact with cement can cause corneal damage due to mechanical stress, immediate or delayed irritation or inflammation. Direct contact with large amounts of dry cement or wet cement splashes can cause

effects ranging from moderate eye irritation (e.g., conjunctivitis or blepharitis) to chemical burns and blindness.
Respiratory or skin sensitisation:
Some individuals may develop eczema after exposure to wet cement dust, caused by an immune reaction to soluble Cr (VI) that causes allergic contact dermatitis. The response can come in a variety of forms ranging from a mild rash to severe dermatitis, resulting from a combination of the two mechanisms. An accurate diagnosis is often difficult to make. Therefore, the water-soluble chromium (VI) content should be reduced to below 0.0002 % with a suitable reducing agent.
An accurate diagnosis is often difficult to make. Therefore, the water-soluble chromium (VI) content should be reduced to below 0.0002% with a suitable reducing agent.
Germ cell mutagenicity:
There is no evidence that cement is mutagenic.
Carcinogenicity:
No causal association has been established between exposure to Portland cement 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. In vitro or animal studies provide no indication of carcinogenicity sufficient to classify the agent by one of the other notations.

STOT-single exposure:
Exposure to cement dust may cause irritation of the respiratory tract (mouth, throat, lungs). Exposure to occupational exposure limits may cause coughing, sneezing, shortness of breath. Prolonged occupational exposure may cause damage to the respiratory tract.
STOT-repeated exposure:
Long-term exposure to breathable cement dust above the occupational exposure limit can lead to coughing, sneezing, shortness of breath, and chronic obstructive airway changes. No chronic effects were noticed at low concentrations.

Information about the components:
Slags, ferrous metal, blast furnace (CAS: 65996-69-2):
Acute toxicity:
LC_{50} (inhalation, Wistar rat): >5235 mg/m^3
LD_{50} (oral, Wistar rat): 2000 mg/kg
NOAEC (subacute, inhalative, rat): 200 mg/m^3 (ongoing study)
Germ cell mutagenicity:
Reverse mutation test (Salmonella typhimurium): not classified.
Mammary cell mutation test (Chinese hamster lung fibroblast (V79): not classified.
Iron (II) sulfate (CAS: 7720-78-7):
LD_{50} (oral, rat): 500 mg/kg (OECD 423)

11.1.3. Information on likely routes of exposure:
Ingestion, inhalation, skin contact, eye contact.

11.1.4. Symptoms related to the physical, chemical and toxicological characteristics:
Cement irritates the skin and mucous membranes. Contact of dry cement with wet skin, or skin contact with wet or watery cement can lead to various irritative and inflammatory skin reactions, e.g. redness and cracking. Prolonged contact with abrasive effect may lead to severe skin damage.
Inhalation of cement dust may aggravate pre-existing respiratory diseases, e.g. asthma or emphysema.
Contact with cement dust may aggravate existing skin or visual diseases.

11.1.5. Delayed and immediate effects as well as chronic effects from short and long-term exposure:
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye damage.
May cause respiratory irritation.

11.1.6. Interactive effects:
No data available.

11.1.7. Absence of specific data:
No information.

11.2. **Information on other hazards:**

Endocrine disrupting properties:

Endocrine disrupting property: Based on available data, does not contain endocrine disruptors.

Other information:

No data available.

SECTION 12: ECOLOGICAL INFORMATION

12.1. **Toxicity:**

The product is not dangerous for the environment. Eco-toxicological tests with Portland cement on Daphnia magna (U.S. EPA, 1994a) and Selenastrum coli (U.S. EPA, 1993) showed a low toxicological impact. Therefore, the LC50 and EC50 values could not be determined. There are no indications of sediment phase toxicity. Adding large amounts of cement to water can, however, cause the pH to rise and can therefore be toxic to aquatic life under certain circumstances.

Information about the components:

Slags, ferrous metal, blast furnace (CAS: 65996-69-2):

IC_{10} (Scenedesmus subspicatus): >100 g/l/72 hours

IC_{50} (Scenedesmus subspicatus): >100 g/l/72 hours

LC_{50} (Daphnia magna): >1000 mg/l/48 hours

EC_{10} (Daphnia magna): >5 g/l/21 days

LC_0 (Daphnia magna): >1000 g/l/48 hours

LC_{50} (Leuciscus idus): >1000 g/l/96 hours

LC_0 (Leuciscus idus): >1000 g/l/96 hours

EC_{50} (activated sludge): >10 g/l/3 hours

EC_{10} (activated sludge): >10 g/l/3 hours

Iron (II) sulfate (CAS: 7720-78-7):

NOEC (Pimephales promelas): 0,24 mg/l/12 months

12.2. **Persistence and degradability:**

Not relevant, as cement is an inorganic mineral product. After hydration, cement residues do not pose a toxicological risk.

Information about the components:

Slags, ferrous metal, blast furnace (CAS: 65996-69-2):

Abiotic degradation is not relevant for inorganic substances.

12.3. **Bioaccumulative potential:**

Not relevant, as cement is an inorganic mineral product.

Information about the components:

Slags, ferrous metal, blast furnace (CAS: 65996-69-2):

log Pow: -9 (20 °C)

Iron (II) sulfate monohydrate (CAS: 13463-43-9):

Bioaccumulation is not expected.

Bypass dust (Flue dust, portland cement) (CAS: 68475-76-3)

Bioaccumulation is not relevant.

Some of the constituents of the flue dust are inorganic minerals and salts that occur naturally in water (dissolved) and sediment. All other constituents are inorganic substances that react with water to form highly insoluble hydration products. Organisms cannot take up and accumulate these constituents and reaction products.

12.4. **Mobility in soil:**

Not relevant, as cement is an inorganic mineral product. After hydration, cement residues do not pose a toxicological risk.

12.5. **Results of PBT and vPvB assessment:**

Cement does not meet the criteria for PBT (bioaccumulative and toxic) or vPvB (very persistent and very bioaccumulative) according to Annex XIII to REACH (Regulation (EC) No. 1907/2006).

12.6. **Endocrine disrupting properties:**

Endocrine disrupting property: Based on available data, does not contain endocrine disruptors.

12.7. **Other adverse effects:**
No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. **Waste treatment methods:**
Disposal according to the local regulations.

13.1.1. **Information regarding the disposal of the product:**
Dispose of in accordance with applicable regulations.
Waste from expired products/products not containing reducing agents if the WATER soluble chromium (VI) content exceeds 0.0002%:
Must be used/sold only for use in closed and fully automated controlled processes or must be recycled or disposed of in accordance with local laws or re-treated with a reducing agent.
Product – unused, dry residue:
Collect unused residue or dry waste as is. Mark the containers. If possible, it should be used without generating dust (within the expiry date). If treated as waste, allow to set after adding water.
Product – sludge/paste:
Allow to harden, avoid entering sewer and drainage systems or water bodies.
Product - after the addition of water, cured:
To be treated as waste. Do not let it enter the sewage system. Solidifies within 5-6 hours after contact with water, after which it can be treated as concrete waste, concrete slurry.
List of Waste Code:
No waste disposal key according to the List of Waste Code (LoW code) can be determined for this product, as only the purpose of application defined by the user enables an allocation. The LoW code number has to be determined after a discussion with a waste disposal specialist.

13.1.2. **Information regarding the disposal of the packaging:**
Dispose of in accordance with applicable regulations.
The contaminated packaging must be fully emptied. The emptied packaging can only be sent to recycling after proper cleaning.

13.1.3. **Physical/chemical properties that may affect waste treatment options shall be specified:**
No data available.

13.1.4. **Sewage disposal:**
No data available.

13.1.5. **Special precautions for any recommended waste treatment:**
No data available.

SECTION 14: TRANSPORT INFORMATION

ADR/RID; ADN; IMDG; IATA:
Not subject to the conventions of carriage of dangerous goods.

14.1. **UN number or ID number:**
No UN or ID number.

14.2. **UN proper shipping name:**
No proper shipping name.

14.3. **Transport hazard class(es):**
No transport hazard classes.

14.4. **Packing group:**
No packing group.

14.5. **Environmental hazards:**
No relevant information available.

14.6. **Special precautions for user:**
No relevant information available.

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:**

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive (EC) No 1999/45 and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive (EEC) No 76/769 and Commission Directives (EEC) No 91/155, (EEC) No 93/67, (EC) No 93/105 and (EC) No 2000/21

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives (EEC) No 67/548 and (EC) No 1999/45, and amending Regulation (EC) No 1907/2006

COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

In accordance with REACH, cement is a mixture and is not subject to registration.
Cement clinker is exempted from the registration obligation (REACH, Article 2(7)(b) and Annex V, 10).

The mixture contains an ingredient that is listed in Annex XVII of Regulation (EC) No 1907/2006 (REACH) and is therefore restricted:
Conditions of restriction: Entry 47 – Cement

1. Cement and cement-containing mixtures shall not be placed on the market, or used, if they contain, when hydrated, more than 2 mg/kg (0,0002 %) soluble chromium VI of the total dry weight of the cement.

2. If reducing agents are used, then without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances and mixtures, suppliers shall ensure before the placing on the market that the packaging of cement or cement-containing mixtures is visibly, legibly and indelibly marked with information on the packing date, as well as on the storage conditions and the storage period appropriate to maintaining the activity of the reducing agent and to keeping the content of soluble chromium VI below the limit indicated in paragraph 1.

3. By way of derogation, paragraphs 1 and 2 shall not apply to the placing on the market for, and use in, controlled closed and totally automated processes in which cement and cement-containing mixtures are handled solely by machines and in which there is no possibility of contact with the skin.

4. The standard adopted by the European Committee for Standardization (CEN) for testing the water-soluble chromium (VI) content of cement and cement-containing mixtures shall be used as the test method for demonstrating conformity with paragraph 1.

15.2. **Chemical safety assessment:** Has not been carried out.

SECTION 16: OTHER INFORMATION

Information regarding the revision of the safety data sheet: No information.

Literature references / data sources:
Safety data sheet issued by the manufacturer (10. 05. 2024, version 1, HU)

Methods used for the classification according to Regulation (EC) No 1272/2008:

Classification	Method
Skin corrosion/irritation, Hazard Category 2 – H315	Based on calculation method
Sensitisation - Skin, hazard category 1 – H317	Based on calculation method
Serious eye damage/eye irritation, Hazard Category 1 – H318	Based on calculation method
Specific target organ toxicity – Single exposure, Hazard Category 3, Respiratory tract irritation – H335	Based on calculation method

Relevant hazard statements (code and full text) of Sections 2 and 3:
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.
H335 – May cause respiratory irritation.

Training advice: In addition to training programmes for health, safety and the environment for their workers, companies must ensure that workers read, understand and apply the requirements of this safety data sheet.

Full text of the abbreviations in the safety data sheet:
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
ADR: Agreement concerning the International Carriage of Dangerous Goods by Road.
ATE: Acute Toxicity Estimate.
AOX: Adsorbable organic halides.
BCF: Bioconcentration factor.
BOD: Biological Oxygen Demand.
CAS number: Chemical Abstract Service number.
CLP: Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.
CMR effects: Carcinogenic, mutagenic, reprotoxic effects.
COD: Chemical Oxygen Demand.
CSA: Chemical Safety Assessment.
CSR: Chemical Safety Report.
DNEL: Derived-No-Effect-Level.
ECHA: European Chemical Agency.
EC: European Community.
EC number: EINECS and ELINCS numbers (see also EINECS and ELINCS).
EEC: European Economic Community.
EEA: European Economic Area (EU + Iceland, Liechtenstein and Norway).
EINECS: European Inventory of Existing Commercial Chemical Substances.
ELINCS: European List of Notified Chemical Substances.
EN: European Norm.
EU: European Union.
EuPCS: European product categorisation system.
EWC: European Waste Catalogue (replaced by LoW – see below).
GHS: Globally Harmonized System of Classification and Labelling of Chemicals.
IATA: International Air Transport Association.
ICAO-TI: Technical Instructions for the Safe Transport of Dangerous Goods by Air.

IMDG: International Maritime Dangerous Goods.
IMO: International Maritime Organization.
IMSBC: International Maritime Solid Bulk Cargoes.
IUCLID: International Uniform Chemical Information Database.
IUPAC: International Union of Pure and Applied Chemistry.
Kow: n-Octanol - Water Partition Coefficient.
LC50: Lethal concentration resulting in 50 % mortality.
LD50: Lethal dose resulting in 50 % mortality (median lethal dose).
LoW: List of Waste.
LOEC: Lowest Observed Effect Concentration.
LOEL: Lowest Observed Effect Level.
NOEC: No Observed Effect Concentration.
NOEL: No Observed Effect Level.
NOAEC: No Observed Adverse Effect Concentration.
NOAEL: No Observed Adverse Effect Level.
OECD: Organization for Economic Cooperation and Development.
OSHA: Occupational Safety and Health Administration.
PBT: Persistent, Bioaccumulative and Toxic.
PNEC: Predicted No Effect Concentration.
QSAR: Quantitative Structure Activity Relationship.
REACH: Regulation 1907/2006/EC concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals.
RID: Regulations Concerning the International Transport of Dangerous Goods by Rail.
SCBA: Self Contained Breathing Apparatus.
SDS: Safety Data Sheet.
STOT: Specific Target Organ Toxicity.
SVHC: Substances of Very High Concern.
UN: United Nations.
UVCB: Chemical Substances of Unknown or Variable Composition, Complex Reaction Products and Biological Materials.
VOC: Volatile Organic Compound.
vPvB: very Persistent and very Bioaccumulative.

This safety data sheet had been prepared on the basis of information provided by the manufacturer/supplier and conform to the relevant regulations.
The information, data and recommendations contained herein are provided in good faith, obtained from reliable sources and believed to be true and accurate as of the date issued; however, no representation is made as to the comprehensiveness of the information.
The SDS shall be used only as a guide for handling the product; in the course of handling and using the product other considerations may arise or be required.
Users are cautioned to determine the appropriateness and applicability of the above information to their particular circumstances and purposes and assume all risk associated with the use of this product.
It is the responsibility of the user to fully comply with local, national and international regulations concerning the use of this product.

Safety data sheet was prepared by:
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