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Version number: 4

SAFETY DATA SHEET

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

1.1. Product identifier:
Portland cement EN 197-1 – CEM I 52,5 R

UFI: P300-00EW-K00Q-H941

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

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

Details of the manufacturer/distributor:
HOLCIM Magyarország Kft.
7953 Királyegyháza, Cement utca 1.
Tel.: +36 73 500 900

1.3.1. Name of person responsible: Kiss Gábor
Email: g.kiss@holcim.com

1.4. Emergency telephone number:
Egészségügyi Toxikológiai Tájékoztató Szolgálat (ETTSZ)
1097 Budapest, Albert Flórián út 2-6.
Phone:.: +36 80 201 199 (0-24 hours, free of charge - from Hungary only)
Phone.: +36 1 476 6464 (0-24 hours, basic rates apply - for international calls)

2. SECTION: HAZARDS IDENTIFICATION

2.1. Classification of the mixture:

Classification according to Regulation (EC) No 1272/2008 (CLP):
Skin corrosion/irritation, Hazard Category 2 - H315
Sensitization - 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 determining hazardousness: Portland cement clinker; Heat-treated furnace dust

GHS05 GHS07

HAZARDS

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 / **P-phrases**
P102 – Keep out of reach of children.
P261 – Avoid breathing dust/fume/gas/mist/vapors/spray.
P280 – Wear protective gloves/eye protection/face protection.
P302 + **P352** – IF ON SKIN: Wash with plenty of water.
P333 + **P313** - If skin irritation or rash occurs: Get medical advice/attention.
P304 + **P340 + P312** - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician 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 or doctor/physician.
P501 - Dispose of contents/container: In accordance with local regulations.

2.3. **Other hazards:**
When used as intended cement is not dangerous to the environment.
Results of the PBT and vPvB assessment: The cement does not meet the criteria for PBT or vPvB substances in accordance with Annex XIII of REACH Regulation (EC) No 1907/2006.
Endocrine disrupting potential: Based on the available data, the product does not contain any endocrine disruptors.

3. SECTION: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. **Substances:**
Not applicable

3.2. **Mixtures:**

Description	CAS-No	EC-number / ECHA list number	REACH reg. no	Conc. (%)	Classification according to Regulation (EC) No 1272/2008 (CLP)		
					Hazard pictogram	Hazard category	Hazard statement
Portland cement-clinker*/**	65997-15-1	266-043-4	-	95 – 100	GHS05 GHS07 Hazard	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 – 5	-	not classified	-
Heat treated furnace dust*	68475-76-3	270-659-9	01-2119486767-17	0 – 1,7	GHS05 GHS07 Hazard	Skin Irrit. 2 Eye Dam. 1 Skin Sens. 1 STOT SE 3	H315 H318 H317 H335
Anhydrate / Calcium sulphate*/**	7778-18-9	231-900-3	01-2119444918-26	5 – 8	-	not classified	-

*: Classification provided by the manufacturer; the substance is not included in Annex VI to Regulation (EC) No 1272/2008.
**: Substance with a workplace exposure limit value.

See section 16 for the full text of the hazard statement(s).

4. SECTION: FIRST AID MEASURES

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

General information: First-aid responders do not need to wear any special personal protective equipment, but should avoid contact with wet cement.

INGESTION:

Actions to be taken:

- Do not induce vomiting.
- If the injured person is conscious, rinse his mouth thoroughly and make them drink copious amounts of water sip by sip, and contact a doctor or toxicology information centre immediately for assistance.

INHALATION:

Actions to be taken:

- Remove the injured person to fresh air.
- Clear the respiratory tract of dust as quickly as possible.
- In case of any complaints (nausea, cough, persistent irritation), seek medical advice.

SKIN CONTACT:

Actions to be taken:

- The dry cement powder should be removed and rinsed off with plenty of water.
- In case of contact with wet cement, the skin should be washed with plenty of water.
- Contaminated clothing, shoes, watches, etc. should be removed and thoroughly cleaned before reuse.
- In case of complaints (skin irritation), consult a doctor.

IF IN EYES:

Actions to be taken:

- Do not rub the eyes, rinse with running water, keeping the eyelids open, for at least 45 minutes.
- If available, use isotonic eye wash (0.9% NaCl).
- Consult a doctor at the workplace/an ophthalmologist.

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

Eye contact: In case of eye contact, cement (dry or wet) can cause serious and permanent eye damage.
Skin contact: Prolonged exposure to cement can irritate moist skin (due to sweating or humidity). Exposure of moist skin to cement may cause skin irritation, dermatitis or severe skin damage.
Inhalation: Repeatedly inhaling large amounts of 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 consulting a doctor, take this safety data sheet with you.

5. SECTION: FIREFIGTHING MEASURES

5.1. **Extinguishing media:**

5.1.1. **Suitable extinguishing media:**

Use extinguishing media suitable for the environment of the fire.

5.1.2. **Unsuitable extinguishing media:**

Unknown.

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

The product is not flammable, explosive or combustible in its transport state or when mixed with water and ready for use.

5.3. **Advice for firefighters:**

Special measures are not necessary as cement does not present a fire hazard.

6. SECTION: ACCIDENTAL RELEASE MEASURES

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

6.1.1. **For non-emergency personnel:**

Only personnel who are familiar with the necessary procedures, trained and wearing appropriate personal protective equipment should be present at the scene of an accident.
Wear appropriate personal protective equipment (see section 8).
For information on safe handling, see section 7.1.

6.1.2. **For emergency responders:**
Wear appropriate personal protective equipment (see section 8).
For information on safe handling, see section 7.1.
A contingency plan is not required. Respirators should be worn in case of high dust exposure.

6.2. Environmental precautions:
Any product released into the environment or waste generated must be treated in accordance with the environmental legislation in force. The release of the product and its waste into living water, soil and public sewers must be prevented. If a pollution incident has occurred, the competent authority must be notified immediately.

6.3. Methods and material for containment and cleaning up:
Spilled cement should be collected while it is still dry if possible.
Dry cement:
Cleaning should preferably be carried out using a dry clean-up method that does not generate dust, e.g. an industrial vacuum cleaner with a suitable filter (EPA and HEPA), or the cement should be wetted down and removed as wet cement.
Wet cement:
The wet cement should be collected mechanically, left to set on a plastic sheet or in a suitable container, and disposed of in accordance with Section 13.

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

7. SECTION: HANDLING AND STORAGE

7.1. Precautions for safe handling:
Standard hygiene procedures must be followed.
Do not store or use it in the immediate vicinity of food, beverages or tobacco products.
Follow the instructions in section 8.
Lifting bags of cement can lead to stiff muscles and strains in the back, arms, shoulders and legs. Careful handling is therefore necessary, and appropriate and suitable lifting methods should be used.
Technical measures:
Avoid dust formation.
When using a bagged product and open mixing equipment, the water should be filled first and then the dry cement should be carefully added. When filling, keep it low. Speed up the mixer slowly. For the collection of spilled dry cement, see section 6.3.
Fire and explosion protection requirements:
No special instructions.

7.2. Conditions for safe storage, including possible conflicts of interest:
Technical measures and storage conditions:
Keep in original packaging.
Bulk cement should be stored in a silo that is dry (to minimize internal condensation), waterproof, clean and protected from contamination.
Do not enter cement storage rooms such as silos, tankers or other containers without taking proper safety precautions, as there is a risk of being buried and suffocation. In such enclosed spaces, cement can form blockages, deposits that can collapse unexpectedly.
Packaged products should be stored in unopened bags on the ground in dry and cool conditions, sheltered from the wind, to avoid deterioration.
The bags must be stored in a stable position.
Incompatible materials: see section 10.5.
Type of material used for packaging/storage: no specific requirements.

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

8. SECTION: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters:

Permissible limits for hazardous substances in the workplace air according to ITM Decree 5/2020 (II. 6.) on the protection of the health and safety of workers exposed to chemical agents:

Portland cement (CAS no: 65997-15-1): AC value: 10 mg/m3; PC value: -
Calcium carbonate (CAS No: 1317-65-3): AC value: 10 mg/m3; PC value: -
Calcium sulphate (CAS No: 7778-18-9): AC value: 4 mg/m3; 1.5 mg/m3 respirable; PC value: -
Chromium (VI) inorganic compounds [calculated as Cr (VI)]: AC value: 0.01 mg/m3; PC value: -

Permissible limits for biological exposure and indicators of effect in urine to be assessed in the case of occupational chemical exposure:

Chemical substance	Biological indicator of exposure (effect)	Date of sampling	Permissible limit value			
			mg/g creatinine	micromoles/mmol, creatinine (rounded values)	mg/l	µmol/l
Chrome	Chrome	end of shift	0,01	0,022	-	-

DNEL values		**Oral exposure**		**Dermal exposure**		**inhalation exposure**	
		Short term (acute)	Long term (chronic)	Short term (acute)	Long term (chronic)	Short term (acute)	Long term (chronic)
User	Local	no data	no data	no data	no data	no data	no data
	System level	no data	no data	no data	no data	no data	no data
Employee	Local	no data	no data	no data	no data	no data	no data
	System level	no data	no data	no data	no data	no data	no data

PNEC values		
Media	Value	Note
Freshwater	no data	None
Seawater	no data	None
Freshwater sediment	no data	None
Seawater sediment	no data	None
Sewage treatment plant (STP)	no data	None
Staged release	no data	None
Secondary poisoning	no data	None
Soil	no data	None

8.2. Exposure controls:

Pursuant to Paragraph (2) of Article 11 of the ITM Decree 5/2020 (II.6.), in the case of dangerous substances not regulated by limit values, the employer shall reduce the level of exposure to the lowest level that can be expected according to the state of scientific and technical knowledge, at which level the dangerous substance has no harmful effects on health.

8.2.1. Appropriate engineering controls:

Care should be taken during application to avoid spillage of the mixture onto floors, clothing, skin or eyes.
Measures should be implemented to prevent dust formation and dust release, such as the use of adequate ventilation systems and cleaning methods that do not cause dust release.

8.2.2. **Individual protection measures, such as personal protective equipment:**

Avoid contact with eyes and skin.
Avoid standing/kneeling in fresh concrete, mortar or grout during processing
Do not eat, drink or smoke while using the product.
Wash your hands before breaks and after working hours. Where appropriate, showering may also be necessary to remove stuck cement dust.
Clean contaminated clothing, footwear, watches, etc. before next use.

1. **Eye/face protection:** In the event of dust formation or splashing hazards, full field of vision goggles should be used (ISO 16321-1:2022; EN 166).
2. **Skin protection:**
    a. **Hand protection:** Use waterproof, wear-resistant and alkali-resistant protective gloves that comply with the requirements (QL 1.5 EN 374, EN 420:2003 compliance).
    b. **Other:** If this is essential, alkali-resistant (alkali-proof), waterproof protective clothing (e.g.: TYCHEM Type C protective clothing - compliance with EN 368, EN 369, EN 463, EN 468, EN 1073--2, EN 14126) should be worn. Wet clothing must be changed immediately. Wear closed, long-sleeved protective clothing and closed footwear. Care must be taken to avoid getting fresh mortar or concrete into shoes or boots. The use of a skin care product is recommended, especially after work.
3. **Respiratory protection:** If the exposure limit values are exceeded (e.g. when mixing), a particulate filter mask must be worn (e.g.: FFP-1 respirator complying with EN 149:2002, or 3M 6200 half mask with 3M 2135 filter cartridge, complying with EN 143:2000).
4. **Thermal hazards:** Unknown.

8.2.3. Environmental exposure controls:

Emissions from ventilation systems and processing equipment should be controlled to ensure that they meet environmental requirements. In some cases, fume hoods, filters or structural modifications to processing equipment may be needed to reduce emissions to acceptable levels.

The requirements under Section 8 apply to activities carried out in a professional manner, under conditions which can be considered normal, and to conditions of use as intended. If the work is carried out under different conditions or in exceptional circumstances, it is recommended that an expert be consulted to decide on the further steps to be taken and the personal protective equipment to be used.

9. SECTION: PHYSICAL AND CHEMICAL PROPERTIES:

9.1. Information on basic physical and chemical properties:

Parameter	Value/Test method/Comment
1. Appearance	finely ground, inorganic, solid powder
2. Colour	grey or white
3. Odour, odour threshold	odourless
4. Melting point/freezing point	no data*
5. Initial boiling point and boiling range	not applicable, as it has a melting point of about 1250 °C under normal conditions
6. Flammability	not applicable
7. Upper/lower explosive limits	not applicable
8. Flashpoint	not applicable
9. Auto-ignition temperature	no data*
10. Decomposition temperature	not applicable as it does not contain inorganic peroxides
11. pH	11--13.5 (at 20°C in water, water/solids 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	not applicable
15. Vapor pressure	not applicable, melting point > 1250 °C
16. Density and/or relative density	specific gravity 2,75--3,20 g/cm³ Bulk density: 0.9-1.5 g/cm³
17. Relative vapor density	not applicable, melting point > 1250 °C
18. Particle properties	no data*

9.2. **Other information:**

9.2.1. **Information on physical hazard classes:**
Explosion risk: Not explosive, not a pyrotechnic product. No gas generating or self-sustaining exothermic chemical reactions.
Oxidizing properties: Not applicable, cement does not have oxidizing properties.

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

*: The manufacturer has not carried out tests for this parameter for the product, or the results of the tests are not available at the time of drawing up the data sheet, or are not applicable to the product.

10. SECTION: STABILITY AND REACTIVITY

10.1. **Reactivity:**
Cement mixed with water sets and forms a solid that does not react with the environment.

10.2. **Chemical stability:**
Dry cement is stable as long as it is stored properly (Section 7).

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

10.4. **Conditions to avoid:**
Moisture during storage can lead to clumping and deterioration.

10.5. **Incompatible materials:**
The uncontrolled use of aluminium powder in wet cement should be avoided as hydrogen is formed.

10.6. **Hazardous decomposition products:**
No dangerous decomposition products are known.

11. SECTION: TOXICOLOGOCAL 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.
Single-target organ toxicity after a single exposure (STOT): May cause respiratory irritation.
Single-target organ toxicity after repeated exposure (STOT): 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. **Summary of clinical trial results**:
No data available.

11.1.2. **Relevant toxicological data:**
Acute toxicity:
Skin contact: Limit test, rabbit, 24 hours, 2000 mg/kg bw - no lethality.
Inhalation: Limit test, rat, 5 g/m^3, no acute toxicity. The study was carried out 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:
In vitro studies have shown that Portland cement clinker (the main component of cement) has various strong effects on the cornea. The calculated "irritation index" is 128. Direct contact with the cement can cause corneal damage, due to mechanical action on the one hand, and immediate or delayed irritation or inflammation on the other hand. Direct contact with large amounts of dry cement or splashing of wet cement into the eye can cause moderate to serious eye irritation (conjunctivitis or eyelid inflammation), which can lead to serious eye damage or blindness.

Respiratory or skin sensitisation:
In some people, contact with wet cement can cause skin eczema. This may be due to the pH value (irritant contact dermatitis) or immunological reactions caused by water-soluble chromium (VI) content (allergic contact dermatitis). The skin reaction can occur in different ways, from a mild rash to severe inflammation, 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.
There are no indications that cement causes respiratory hypersensitivity.
Germ cell mutagenicity:
There is no evidence that cement is mutagenic.
Carcinogenicity:
No causal relationship was found between cement exposure and cancer. Epidemiological studies do not indicate a link between cancer and cement exposure. Portland cement is not classified as a human carcinogen according to ACGIH A4. In vitro studies and animal experiments do not provide sufficient evidence to confirm carcinogenicity
Single-target organ toxicity after a single exposure (STOT):
Exposure to cement dust may cause irritation of the respiratory tract (mouth, throat, lungs). Exposure to occupational exposure limits may result in coughing, sneezing, and shortness of breath. Prolonged exposure at work can damage the respiratory tract.
Single-target organ toxicity after repeated exposure (STOT):
Long-term exposure above the occupational exposure limit may cause coughing, breathlessness and chronic obstructive lesions in the respiratory tract. No chronic effects have been observed at low concentrations.

11.1.2. 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 is a skin and mucous membrane irritant. Contact of dry cement with wet skin or skin contact with moist/wet cement can lead to various irritative and inflammatory skin reactions, such as redness and cracking. Prolonged abrasive exposure can lead to serious skin damage.
Inhaling cement dust can aggravate pre-existing respiratory conditions such as asthma or emphysema.
Contact with cement dust can aggravate existing skin or eye 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 data available.

11.2. Information on other hazards:
Endocrine disrupting properties:
Endocrine disrupting property: Based on the available data, the product does not contain any endocrine disruptors.
Other information:
No data available.

12. SECTION: ECOLOGICAL INFORMATION

12.1. Toxicity:
The product is not harmful to the environment. Biotoxicological study of Portland cement using Daphnia magna (U.S. EPA, 1994a) (12) and Selenastrum Coli (U.S. EPA, 1993) (13) showed only a minor toxicological effect. As a result, LC50 and EC50 values could not be determined. (14) However, the introduction of large quantities of cement into water can change its pH value, which under certain conditions can be toxic to aquatic life.

12.2. Persistence and degradability:
Not relevant, as cement is an inorganic mineral product. After hydration, cement residues do not pose a toxicological hazard.

12.3. Bioaccumulative potential:
Not relevant, as cement is an inorganic mineral product.

12.4. Mobility in soil:
Not relevant, as cement is an inorganic mineral product. After hydration, cement residues do not pose a toxicological hazard.

12.5. Results of the PBT and vPvB assessment:
The cement does not meet the criteria for PBT or vPvB substances in accordance with Annex XIII of REACH Regulation (EC) No 1907/2006.

12.6. **Endocrine disrupting properties:**
Endocrine disrupting property: Based on the available data, the product does not contain any endocrine disruptors.

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

13. SECTION: DISPOSAL CONSIDERATIONS

13.1. **Waste treatment methods:**
Handling and disposal of the product residues in accordance with the provisions of Act CLXXXV of 2012, Government Decree 225/2015 (VIII. 7.) and Decree 72/2013 (VIII. 27.) VM.

13.1.1. **Waste disposal information:**
Dispose of in accordance with the relevant regulations.
Waste from expired products/products not containing reducing agents if the WATER soluble chromium (VI) content exceeds 0,0002 %:
The product may not be used or placed on the market unless it is used in a controlled, contained, fully automated process or a chromate reducing agent is added.
Remaining unused dry product:
Collect in a dry state. Mark the storage container. Such amounts should be used if possible (before the date of expiration). If treated as waste, allow it to solidify after adding water.
Wet, sludgy product:
The wet, sludgy product should be left to solidify and should not be allowed to enter the sewage system or waterways.
Product which has solidified due to added water:
To be treated as waste. It must not enter the sewage system. It solidifies within 5 to 6 hours after contact with water, and subsequently it can be treated as concrete waste or concrete slurry.
Waste List Code:
The product cannot be issued a corresponding waste list code as identification of the correct code is based on the use of the product as defined by the user. The waste list code can be assigned after consultation with the disposal operator in the Community.

13.1.2. **Packaging disposal information:**
Dispose of in accordance with the relevant regulations.
All packaging material must be emptied and taken to a selective waste collection point.

13.1.3. **Physical/chemical properties that may affect waste treatment options:**
Not known.

13.1.4. **Instructions on waste water treatment:**
Not known.

13.1.5. **Special precautions relating to waste management methods:**
No data available

14. SECTION: TRANSPORTINFORMATION

ADR/RID; ADN; IMDG; IATA:
Not covered by Carriage of Dangerous Goods Conventions.

14.1. **UN number or identification number (ID number):**
None.

14.2. **UN proper shipping name:**
None.

14.3. **Transport hazard class(es):**
None.

14.4. **Packing group:**
None.

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

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

14.7. **Transport in bulk according to IMO rules:**
Not applicable.

15. SECTION: REGULATORY INFORMATION

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

1. REACH international regulation:
   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 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC
2. CLP international regulations:
   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 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
3. COMMISSION REGULATION (EU) No 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
4. National regulations on hazardous substances:
   Act XXV of 2000 on Chemical Safety and its amendments
   Decree No 44/2000 (XII. 27.) EüM on the detailed rules of certain procedures and activities relating to hazardous substances and hazardous preparations and its amendments.
5. National regulations on waste:
   Act CLXXXV of 2012 on Waste
   Government Decree No 225/2015 (VIII. 7.) on the detailed rules of certain activities relating to hazardous waste
   Decree No 72/2013 (VIII. 27.) VM on the list of waste and its amendments
6. National regulations on water pollution:
   Government Decree 220/2004 (VII. 21.) and its amendments
7. National regulations on occupational safety and health:
   Act XCIII of 1993 on Occupational Safety and Health, its amendments, and the relevant NM, MüM decrees
8. Regulations on occupational air and biological limit values:
   Decree 5/2020. (II. 6.) ITM on the protection of the health and safety of workers from the risks related to chemical pathological factors

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

The mixture contains a substance that is listed in Annex XVII of Regulation (EC) No 1907/2006 (REACH) and is therefore subject to restriction:

The conditions of the restriction are: Item 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 % by weight) 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:** Not prepared.

16. SECTION: OTHER INFORMATION

Information on the review of the safety data sheet:
The Safety Data Sheet has been revised in accordance with Regulation (EU) 2020/878 (sections 1-16).
The composition and hazard classification of the mixture have not changed significantly compared to the previous version.

This safety data sheet supersedes all previous versions in accordance with Annex II of Regulation (EC) No 1907/2006.

Literature references and sources used:
The previous version of the safety data sheet (23/03/2020, version 3.00 version).
Information provided by the manufacturer.

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

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

Full text of the hazard statements in Sections 2 and 3 of the safety data sheet:
H315 – Causes skin irritation.
H317 – May cause an allergic skin reaction.
H318 – Causes serious eye damage.
H335 – May cause respiratory irritation.

Advice on further training: While training programs for workers are essential in terms of health, safety and environmental protection, it is the company's responsibility to ensure that workers read, understand and implement safety requirements.

Full text of abbreviations used 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 value.
AOX: Adsorbable organically bound halogens.
AC value: Permissible average concentration.
BCF: Bioconcentration factor.
BOI: Biochemical oxygen demand.
CAS-number: "Chemical Abstract Service" number.
PC value: Permissible peak concentration (maximum permissible air pollution for a short period).
CLP: Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.
CMR effects: Carcinogenic, mutagenic or toxic to reproduction.
CSA: Chemical safety assessment.
CSR: Chemical safety report.
DNEL: Derived no-effect level.
ECHA: European Chemicals Agency.
EC: European Community.
EC number: EINECS and ELINCS number (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 standard.
UN: United Nations.
EU: European Union.
EuPCS: EU product classification 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: The International Civil Aviation Organization technical instructions for the safe transport of dangerous goods by air.
IMDG: International Code for the International Carriage of Dangerous Goods by Sea.
IMO: International Maritime Organisation.

IMSBC: International Maritime Solid Bulk Cargoes.
IUCLID: International Uniform Chemical Information Database. IUPAC: International Union of Pure and Applied Chemistry.
KOI: Chemical oxygen demand.
Kow: n-octanol/water partition coefficient.
LC_{50}: Lethal concentration which kills 50% of the test population.
LD_{50}: Lethal dose which kills 50% of the test population (median lethal dose). LoW: List of waste.
LOEC: The lowest concentration where an effect has been observed.
LOEL: The lowest dose that causes an observed effect.
MC value: Maximum concentration.
NOEC: The highest concentration that has no observable effect.
NOEL: The highest dose that has no observable effect.
NOAEC: The highest concentration that does not cause observable adverse effects.
NOAEL: The highest dose that does not cause observable adverse effects.
OECD: Organisation for Economic Cooperation and Development. OSHA: European Occupational Safety and Health Administration.
PBT: Persistent, bioaccumulative and toxic.
PNEC: Predicted no-effect concentration.
QSAR: Quantitative relationship between molecular structure and biological effect.
REACH: Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals.
RID: Regulations concerning the international carriage of dangerous goods by rail.
SCBA: Self-contained breathing apparatus.
SDS: Safety Data Sheet.
STOT: Single target organ toxicity.
SVHC: Substances of very high concern.
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 has been prepared on the basis of documentation provided by the manufacturer/supplier of the product and complies with the applicable regulations and standards.
The information, data and recommendations contained in the safety data sheet, which are believed to be accurate, correct and professional at the time of publication, have been produced by competent professionals in good faith.
Additional considerations, not mentioned here, may be necessary in the use and handling of the product in certain circumstances.
It is the responsibility of the operator to consider the reliability of the information contained in the safety data sheet and to determine the specific use and handling of the product.
The user is obliged to comply with all applicable legal requirements relating to activities involving the use of the product.