AKCINĖ BENDROVĖ

CEMENT SAFETY DATA SHEET

In accordance with REACH Regulation (EC) No 1907/2006
Reviewed on: 2026-01-13. Version: 3.4 /EN Replaces all previous versions Print Date 2026-01-13

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

1.1. Product identifier

Portland cement	**UFI: 0300-Y095-400G-4MMF**
CEM I 42,5N	CEM I 42,5R
CEM I 42,5N-SR3	CEM I 52,5R
Portland-limestine cement	**UFI: A800-Y0NX-R00G-F9SK**
CEM II/A-LL 42,5N	CEM II/A-LL 42,5R
Portland-slag cement	**UFI: SW10-K0SG-J00V-1SUT**
CEM II/A-S 42,5N	
Blust furnace cement	**UFI: 9T10-3033-800D-DF8R**
CEM III/B 32,5N-LH/SR	
Portland-pozzolana cement	**UFI: MY10-30FV-V00D-Q4EV**
CEM II/A-P 52,5N	
Portland-composite cement	**UFI: W220-M059-500V-CG0X**
CEM II/B-M (P-LL) 42,5N	
Portland-composide cement	**UFI: H720-M0J2-S00V-P562**
CEM II/B-M (S-LL) 42,5R	

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

Cement is used in the production of building materials as a hydraulic binding agent for plastering, masonry mortars and various concretes and concrete products.

Conventional cements and cement mixtures (hydraulic binders) are used for indoor and outdoor work by professional users or users in the production and construction of building materials. Uses of cement and cement mixtures include dry mixtures and wet suspensions.

A list of uses for professional users, including process categories and descriptors in accordance with ECHA Guideline R.12 (ECHA-2010-G-05), is listed in Section 16.2.

It is not recommended to use it for a purpose other than those not mentioned above.

1.3. Details of the supplier of the safety data sheet

Manufacturer:	AB "Akmenės cementas"
Address:	J. Dalinkevičiaus St. 2, LT-85118 Naujoji Akmenė
Phone:	+370 425 58323
E-mail of the competent person responsible for the safety data sheet:	info@cementas.lt
Company website:	www.cementas.lt

1.4. Emergency telephone number

Poison Control and Information Bureau

Phone:	+370 5 236 20 52
Website:	www.apsinuodijau.lt

Emergency phone is available outside of business hours: Yes

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

In accordance with the provisions of Regulation (EC) No 1272/2008,

Hazard class	Hazard category	Hazard phrases
Skin irritation	2	H315: Skin irritation
Severe eye damage/eye irritation	1	H318: Serious eye damage
Sensitizes the skin	1B	H317: May cause an allergic skin reaction
Specific organ-specific toxicity (single exposure) - irritation of the respiratory tract	3	H335: May cause respiratory irritation

2.2. Label elements
Labelling in accordance with Regulation (EC) No 1272/2008 (CLP)
Hazard pictograms

Signal word*:* DANGEROUS

Hazard phrases

H318	Severely damages the eyes
H315	Irritates the skin
H317	May cause an allergic skin reaction
H335	May irritate the respiratory tract

Precautionary phrases
P102 Keep out of the reach of children.
P280 Wear protective gloves/wear protective clothing/use eye (face) protection.
P305+P351+P338+P310 In case of contact with eyes: Rinse carefully with water for a few minutes. Remove contact lenses, if they are present and if it is readily possible to do so. Continue to wash your eyes. Call the POISON CONTROL AND INFORMATION BUREAU immediately or consult a doctor
P302+P352+P333+P313 In case of skin contact: Wash with plenty of soap and water. If the skin is irritated or has a rash: Consult a doctor.
P261+P304+P340+P312 Try not to inhale dust/smoke/gas/fog/vapour/aerosol. INHALATION: Take the victim out into the fresh air: he needs peace and a position that allows him to breathe freely If you feel unwell, call the POISON CONTROL AND INFORMATION OFFICE or consult a doctor
P501 Dispose of the contents/container in accordance with local requirements.

Additional information
Contact with the skin of wet cement, fresh concrete or mortar can cause irritation, dermatitis or burns. May damage products made of aluminum or other non-precious metals.

2.3. Other hazards
Cement is not classified as sustainable, bioaccumulative, toxic or very sustainable and bioaccumulative (according to Annex XIII to the REACH Regulation No 1907/2006).
A reducing agent is added to the cement for packaging to keep the soluble chromium (VI) content below 2mg/kg (0.0002%) of the dry mass of cement. If the storage conditions are not suitable or the storage period is exceeded, the effectiveness of the reducer may decrease, and cement may cause an allergic reaction of the skin.
In the case of atopic predispositions (sudden hypersensitivity allergy, IgE is detected), no threshold for reactogenicity is applied. Therefore, end users are kindly invited to check if they have this atopic predisposition and to immediately cease all contact if a sudden reaction occurs. In any case, carrying PPE during work is essential.

In accordance with REACH Regulation (EC) No 1907/2006
Reviewed on: 2026-01-13. Version: 3.4/EN Replaces all previous versions Print Date 2026-01-13

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable because the product is a mixture.

3.2. Mixtures

Portland cement according to LST EN 197-1:2011

Name of the substance	Konc. Interval cements	EINECS	CAS	Registration number	Classification according to Regulation (EC) No 1272/2008 (CLP)		Specific concentration limit SCL, factor M and acute toxicity estimate for ATE
Portland cement clinker	20-100%	266-043-4	65997-15-1	Not applicable	Irritates the skin 2 Eye irritation 1 Skin sensitization 1B STOT SE 3	H315 H318 H317 H335	Not applicable
Cement clinker production dust	0-0,5%	270-659-9	68475-76-3	01-2119486767-17-xxxx	Irritates the skin 2 Eye irritation 1 Skin sensitization 1B STOT SE 3	H315 H318 H317 H335	Not applicable

(1) Cement is a mixture under REACH and does not need to be registered. Portland cement clinker is not subject to registration (Article 2(7)(b) and Annex V.10 of the REACH Regulation).
(2) Cement clinker production dust is a material, i.e. dust from the exhaust gas bypass system, which is generated during the clinker production process.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General comments

Personal protective equipment is not required for those providing first aid. They should avoid contact with wet cement or wet cement-containing mixtures.

Inhalation

To take the victim out into the fresh air, the position of the body must be such that it is possible to breathe freely. If you feel discomfort, cough or other symptoms, it is necessary to consult a doctor.

In case of contact with the skin

If dry cement gets on the skin, wipe it and rinse it with plenty of water.
In case of wet/damp cement on the skin, rinse with plenty of water.
Remove contaminated clothes, take off shoes, remove glasses, etc., before using these items again, clean them well.
If skin rashes or burns appear, consult a specialist.

In case of eye contact

Do not rub your eyes to avoid possible mechanical damage to the cornea. Remove contact lenses. Rinse well with water, rinse for about 20 minutes to remove all dust. If possible, use isotonic water (0.9% NaCl). Contact an occupational medicine specialist or ophthalmologist.

If swallowed

Do not induce vomiting. If the victim is conscious, rinse his mouth with water, give him plenty of water to drink. Immediately consult a doctor or contact the poison information office .

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

Eyes: Dry or wet cement that gets into your eyes can cause serious and potentially irreversible damage.
Skin: In the case of prolonged contact, when applied to damp skin (due to sweat or moisture), cement can cause stinging, and in the case of repeated contact, it can cause dermatitis. Prolonged contact with cement or concrete and damp skin can cause skin irritation, dermatitis, or burns.
For more details, see. [1].

Inhalation: Constant inhalation of cement dust can lead to lung disease.

In accordance with REACH Regulation (EC) No 1907/2006
Reviewed on: 2026-01-13. Version: 3.4/EN Replaces all previous versions Print Date 2026-01-13

Environment: Under normal conditions of use, cement is not harmful to the environment.

4.3. Indication of any immediate medical attention and special treatment needed
When contacting your doctor, please provide this safety data sheet.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media
Conventional cement is non-flammable**.**

5.2. Special hazards arising from the substance or mixture
Cement is not flammable or explosive and does not encourage the explosion of other compounds and materials.

5.3. Advice for firefighters
Cement does not pose a fire hazard. No special protective equipment for firefighters is required.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures
6.1.1. For non-emergency personnel
Use the personal protective equipment described in Section 8 and comply with the safety requirements of Section 7.

6.1.2. For emergency responders
Emergency procedures are not applicable.
If there is a lot of dust, respirators must be used to protect the respiratory tract.

6.2. Environmental precautions
Do not flush cement into sewer and drainage systems or other water objects.

6.3. Methods and material for containment and cleaning up
Collect the spilled material and use.

Dry cement
Use dry cleaning methods that do not cause dusting, such as vacuum cleaners (portable industrial, equipped with high-efficiency particulate filters (EPA and HEPA filter, EN 1822-1) and so on). Do not use compressed air.
In case of dusting, use wet cleaning: water sprayers or hoses (fine mist to prevent dusting). Wet cement (see. "Wet cement").
When wet cleaning or vacuum cleaning is not possible, but dry cleaning using brooms is possible, workers should wear appropriate personal protective equipment and avoid dusting.
Avoid inhalation of cement and contact with skin. Sweep the cement and collect it in bags or other containers. Before removal, allow the cement to harden, and proceed as described in section 13.

Wet cement
Collect wet cement in containers. Allow the material to dry and harden and dispose of the waste as described in section 13.

6.4. Reference to other sections
For more details, see. Chapters 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

7.1.1. Safety precautions

See recommendations referred to in Section 8.
When removing dry cement, observe 6.3. Section Directives.

Fire prevention measures

Not applicable.

Aerosol and dust prevention measures

Do not sweep the material. Use dry cleaning methods, such as vacuum cleaners, that do not cause dusting. Advice on safe use can be found in the so-called 'Good Practice Guides', which can be found at: http://www.nepsi.eu/agreement-/good-practice-guide.aspx. These good practices have been adopted on the basis of the social dialogue 'Agreement between European Workers and Employers in Different Sectors', which includes CEMBUREAU, on the application of the principles of protection of workers' health and good practice in the handling and use of crystalline silica and products containing it.

Environmental protection measures

There are no special measures.

7.1.2. Information on general occupational hygiene

Do not store the substance near food, beverages, or smoking materials. If there is a lot of dust in the environment, it is necessary to wear a mask and safety glasses. It is necessary to wear protective gloves to avoid contact with the skin.

7.2. Conditions for safe storage, including any incompatibilities

Loose cement must be stored in silos that are protected from moisture, dry (i.e. with as little internal condensation as possible), clean and free of contamination.
Risk of clogging: Cement can stick or stick to a wall in an enclosed space and fall unexpectedly if it comes off. To avoid burial or suffocation, do not walk in enclosed spaces such as silos, sheds, and similar containers that do not have adequate protective equipment.
Packaged cement should be stored in closed bags, in a cool, dry place, protected from excessive moisture, to avoid deterioration of quality.
The bags must be stacked stably.
Due to material incompatibility, aluminum containers cannot be used for storage or transportation.

7.3. Specific end use(s)

There is no additional information for specific end-users (see Section 1.2).

Water-soluble chromium (VI)

Bulk cement contains more than 0.0002% water-soluble chromium (VI), so cement must be used in controlled, closed and fully automated processes where cement is processed only by machines and where there is no possibility of skin contact.
The reducing properties of cement for packaging that have been treated with a reducing agent Cr (VI) in accordance with the Regulation referred to in Section 15 decrease with time. Therefore, the packaging and/or delivery documents of the cement bag contain information on the shelf life declared by the manufacturer, during which the reducing agent remains effective when the cement is stored under the conditions recommended by the manufacturer, ensuring that the content of water-soluble chromium (VI) in cement is less than 0.0002 % (determined in accordance with LST EN 196-10).

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limit values - concentration limit values are given in HN 23:2011

Chemical	Long-term exposure limit value (IPRD) mg/m3	Observations
Dust cement: - Inspirational fraction - alveolar fraction	 10 5	 *

* See Table 1 of Annex 1 to HN 23:2011.

8.2. Exposure controls

For each individual process category (PERCENT), the user can choose option A) or B) from the table below, depending on what is most suitable for the specific situation**.** If one option is selected, the same option must be selected from Section 8.2.2 "Personal protective equipment such as personal protective equipment". Only combinations A) – A) and B) – B) are possible.

8.2.1. Appropriate engineering controls

Measures to reduce dust generation and prevent dust from entering the environment, such as dust collection, exhaust ventilation, dry cleaning techniques that do not cause dispersion of airborne particles.

Usage	PROC*	Duration of exposure	Local control	Efficiency
Industrial production / production of hydraulic construction and building materials	2, 3	Duration is not limited (up to 480 minutes per shift, 5 shifts per week)	Not required	-
	14, 26		(A) is not required, or B) Local exhaust ventilation	- 78 %
	5, 8b, 9		(A) general ventilation, or B) Local exhaust ventilation	17 % 78 %
Industrial Use of Dry Hydraulic Construction and Building Materials (Indoor, Outdoor)	2		Not required	-
	14, 22, 26		(A) is not required, or B) Local exhaust ventilation	- 78 %
	5, 8b, 9		(A) general ventilation, or B) Local exhaust ventilation	17 % 78 %
Industrial Wet Suspension Use of Hydraulic Construction and Building Materials	7		(A) is not required, or B) Local exhaust ventilation	- 78 %
	2, 5, 8b, 9, 10, 13, 14		Not required	-
Professional use of dry hydraulic building and building materials (indoor, outdoor)	2		Not required	-
	9, 26		(A) is not required, or B) Local exhaust ventilation	- 72 %
	5, 8a, 8b, 14		(A) is not required, or B) Integrated local exhaust ventilation	- 87 %
	19		Localized control is not applied, the process is only in a well-ventilated room or outdoors	-
Professional Wet Suspension Hydraulic Construction and Building Materials Industrial Use	11		(A) is not required, or B) Local exhaust ventilation	- 72 %
	2, 5, 8a, 8b, 9, 10, 13, 14, 19		Not required	-

* The purpose of the PER cent is defined in 16.2. section.

8.2.2. Individual protection measures, such as personal protective equipment

General:

During work, where possible, avoid kneeling on fresh mortar or concrete. If kneeling is definitely necessary, it is necessary to wear waterproof personal protective equipment.
Do not eat, drink or smoke when working with cement to prevent it from getting on the skin or in the mouth.
Before you start working with cement, apply a protective cream. Immediately after working with cement or cement-containing materials, workers are required to take a shower or use skin moisturizers.
Remove contaminated clothes, take off shoes, take off your watch, etc., and clean thoroughly before next use.

Eye and/or face protection

It is necessary to wear safety glasses that comply with the EN 166 standard and to avoid contact with dry or wet cement.

Skin protection

It is necessary to wear impermeable, wear-resistant and alkali-resistant protective gloves (e.g. nitrile-impregnated cotton gloves with CE marking) with cotton lining, shoes, and wear long-sleeved clothing. It is possible to use skin protective creams that protect the skin from prolonged contact with wet cement. Special care should be taken to ensure that wet cement does not get into the shoes. To avoid skin problems, wear gloves according to the maximum wear time. Particular attention should be paid to ensuring that wet cement does not get into the shoes. As for gloves, studies have shown that nitrile-impregnated cotton gloves (layer thickness about 0.15 mm) provide sufficient protection for 480 minutes, taking into account normal wear and tear, which may depend on the task. Always replace damaged or soaked gloves immediately. Always have spare gloves.
Under certain circumstances, such as when laying concrete, waterproof trousers or knee pads should be worn.

Respiratory protection

If there is a persistent risk of exposure to an environment with a high concentration of dust above the potential exposure limit values, it is necessary to use respiratory protective equipment adapted to the appropriate dust level and complying with EN standards (EN 149, EN 140, EN 14387, EN 1827, etc.).

Usage	PROC*	Duration of exposure	Respiratory Protective Equipment (AP)	AP Efficiency - Established Protection Factor (APF)
Industrial production/production of hydraulic construction and building materials	2, 3	Duration is not limited (up to 480 minutes per shift, 5 shifts per week)	Not required	-
	14, 26		A) P1 mask (FF, FM) or B) not required	APF = 4 -
	5, 8b, 9		A) P2 mask (FF, FM) or B) P1 mask (FF, FM)	APF = 10 APF = 4
Industrial Use of Dry Hydraulic Construction and Building Materials (Indoor, Outdoor)	2		Not required	-
	14, 22, 26		A) P1 mask (FF, FM) or B) not required	APF = 4 -
	5, 8b, 9		A) P2 mask (FF, FM) or B) P1 mask (FF, FM)	APF = 10 APF = 4

Usage	PROC*	Duration of exposure	Respiratory Protective Equipment (AP)	AP Efficiency - Established Protection Factor (APF)
Industrial Wet Suspension Use of Hydraulic Construction and Building Materials	7		A) P1 mask (FF, FM) or B) not required	APF = 4 -
	2, 5, 8b, 9, 10, 13, 14		Not required	-
Professional use of dry hydraulic building and building materials (indoor, outdoor)	2		P1 Mask (FF, FM)	APF = 4
	9, 26		A) P2 mask (FF, FM) or B) P1 mask (FF, FM)	APF = 10 APF = 4
	5, 8a, 8b, 14		A) P3 mask (FF, FM) or B) P1 mask (FF, FM)	APF = 20 APF = 4
	19		P2 Mask (FF, FM)	APF = 10
Professional Wet Suspension Hydraulic Construction and Building Materials Industrial Use	11		A) P2 mask (FF, FM) or B) P1 mask (FF, FM)	APF = 10 APF = 4
	2, 5, 8a, 8b, 9, 10, 13, 14, 19		Not required	-

* The use of the PER cent is defined in Section 16.2.

An overview of the factors of protective measures (according to EN 529) can be found in the MEASE dictionary (16).
Respiratory protective equipment should only be worn if the following principles are simultaneously implemented: the duration of work (compared to the "duration of exposure" above) should reflect the additional physiological stress on the worker due to respiratory resistance and AP mass, due to the increased thermalload covering the head. In addition, wearing protective equipment is believed to reduce the employee's ability to use tools and communicate.
For the above reasons, the worker should be (i) healthy (especially with regard to health problems that may affect the use of the AP), (ii) impermeability/tightness between the face and the mask must be ensured (with regard to scarring and facial hair).
The employer and self-employed persons are legally responsible for the issuance and management of respiratory protective equipment with proper use in the workplace. They should therefore define and document appropriate policies for the use of respiratory protective equipment, including training for staff.

Protection against thermal hazards
Not applicable.

8.2.3. Environmental exposure controls

Air: The environmental impact control of cement particles must be carried out in accordance with the existing common dust particle emission technology and regulation.

Water: Do not wash cement into sewage systems or water bodies to avoid high pH. A pH higher than 9 may have adverse ecotoxicological effects.

Soil and terrestrial environment: There are no special emission control measures for the terrestrial environment.
For more information, see Section 6 "Emergency Response Measures".

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

This information applies to the mixture as a whole.

a) *Physical state*: Dry cement is a finely ground inorganic solid
b) *Colour:* grey or white powder (dry cement).
c) *Odour*: odorless
(d) *Melting point/freezing point:* Melting point > 1 250 °C
(e) *Boiling point or initial boiling point and boiling range:* not applicable because under normal atmospheric conditions, the melting point > 1 250 °C
f) *Flammability:* Not applicable because it is a solid that is non-flammable and does not cause or contribute to a fire due to friction.
(g) *Lower and upper explosion limit:* does not apply to solids.
h) *Flash point:* Not applicable to gases, aerosols and solids.
(i) *Auto-ignition temperature:* not applicable (no pyrophoric – no organic-metallic, organic-metalloid or organic-phosphine bonds or their derivatives and no other pyrophoric constituents in the composition)
j) *Decomposition temperature:* Not applicable because there is no organic peroxide
(k) *pH:* (T = 20°C in water, water-to-solid ratio 1:2): 11-13.5
(l) *Kinematic viscosity:* Solids are not subject to
(m) *Solubility (T = 20 °C):* low (0,1-1,5 g/l)
(n) *Partition coefficient n-octanol/water (log value):* n-octanol/water: Not applicable because it is an inorganic mixture
o) *Vapor pressure:* not applicable because the melting point > 1250
(p) *Density and/or relative density:* 2,75 to 3,20; Apparent density: 0.9-1.5 g/cm³
q) *Relative vapour density:* Not applicable because the melting point > 1250 °C
r) *Particle characteristics:* Typical particle size: 5-30 µm

9.2. Other information

9.2.1 Information with regard to physical hazard classes

Not applicable.

9.2.2 Other safety characteristics

Not applicable.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

When mixed with water, cement hardens to a stable mass that is not reactive in normal environments.

10.2. Chemical stability

When properly stored, cement remains stable (see Section 7) and is compatible with most other building materials. Cement must be stored dry.
Avoid contact with incompatible materials.
Wet cement is an alkaline substance and is incompatible with acids, ammonium salts, aluminum and other non-precious metals. Cement dissolves in hydrochloric acid, forming corrosive silica tetrafluoride gas. Cement reacts with water, silicates and calcium hydroxide are formed. Silicates in cement react with a certain oxidizing agent, e.g.: fluorine, boron trifluoride, manganese trifluoride, ammonium hydrogen difluoride.

10.3. Possibility of hazardous reactions

Cement does not cause dangerous reactions.

10.4. Conditions to avoid

When stored in wet conditions, lumps may form and the quality of the product may deteriorate.

10.5. Incompatible materials
Acids, ammonium salts, aluminium and other non-precious metals. Uncontrolled use of aluminum powder in wet cement should be avoided as hydrogen is produced.

10.6. Hazardous decomposition products
Cement does not break down into hazardous products.

SECTION 11: TOXICOLOGICAL INFORMATION

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

Hazard classes	Cat.	Impact	Reference
Acute toxicity- through the skin	-	A limited number of tests have been carried out, rabbits, 24 hour contact, 2,000 mg/kg body weight - not fatal. According to the available data, it does not meet the classification criteria.	(2)
Acute toxicity- inhalation	-	Acute inhalation toxicity has not been identified. According to the available data, it does not meet the classification criteria.	(9)
Acute toxicity- oral	-	Studies have shown no signs of toxicity after ingestion with cement stove dust. According to the available data, it does not meet the classification criteria.	Literature review
Skin corrosion/irritation	2	Cement in contact with damp skin can cause sudden cracking of the skin. Prolonged contact with the skin can cause severe burns.	(2) People's experience
Severe eye damage/eye irritation	1	Portland cement clinker has an uneven effect on the cornea and an estimated irritation index of 128. Direct contact with cement can damage the cornea, causing sudden or delayed irritation or inflammation. Direct contact with a large amount of cement can lead to serious consequences: from moderate eye irritation (e.g. conjunctivitis or blepharitis) to chemical burns and blindness.	(10), (11)
Skin sensitization	1B	Some people may develop eczema due to exposure to wet cement dust. Due to the high pH, contact dermatitis can occur over time, or due to an immune reaction to water-soluble Cr (VI), cement dust can cause allergic contact dermatitis. The effects can take many forms, from mild rashes to severe dermatitis, and are the result of both of the mechanisms mentioned above. If the cement contains a soluble Cr (VI) reducing agent, it is likely that as long as the time of effectiveness of chromate reduction is not exceeded, it is likely that there will be no irritating effect [Reference (3)].	(3), (4), (17) (18)
Respiratory sensitization	-	There are no signs of respiratory sensitization. According to the available data, it does not meet the classification criteria.	(1)
Mutagenic effects on gametes	-	There are no signs. According to the available data, it does not meet the classification criteria.	(12), (13)
Carcinogenicity	-	There is no association between exposure to Portland cement and cancer. Portland cement is not classified as carcinogenic in the epidemiological literature (according to ACGIH A4: There is a lack of data to conclusively evaluate substances of concern as potentially carcinogenic to humans. In vitro (tube) or animal studies do not show signs of carcinogenic activity sufficient to classify the substance under one or another symbol designation). According to the available data, it does not meet the classification criteria.	(1) (14)
Reproductive toxicity	-	On the basis of the available data, does not meet the classification criteria	Based on human experience, there is no evidence

STOT (single exposure)	3	Cement dust can irritate the throat and respiratory tract. Exceeding the possible exposure limit values may result in coughing, sneezing or shortness of breath. Overall, trends in evidence clearly show that cement dust affects respiratory functions. However, there is currently insufficient evidence to accurately estimate the dose-response ratio.	(1)
STOT (repeated exposure)	-	Prolonged exposure to inhaled cement dust above the occupational exposure limit can cause coughing, shortness of breath, and chronic obstructive changes in the airways. At low concentrations, no chronic effects were observed. According to the available data, it does not meet the classification criteria.	(15)
Aspiration Hazard	-	Not applicable, since cement is not used as an aerosol.	

In addition to skin sensitization, conventional cement has the same toxicological and ecotoxicological properties as Portland cement clinker.

Exposure to aggravated health disorders
Cement dust can aggravate existing respiratory diseases and/or health disorders such as emphysema or asthma and/or existing skin or eye diseases.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties
Not applicable.

11.2.2 Other information
Not applicable.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity
The product is not hazardous to the environment. Ecotoxicological tests of Portland cement on daphnia (Daphnia magna) [see (5)] and algae (Selenastrum coli) [see. (6)] showed a low toxicological effect. The values for LC_{50} and EC50 could not be determined [see Fig. (7)]. There is no evidence of sedimentary phase toxicity [see Fig. (8)]. A large amount of clinker entering the water increases the pH and can be toxic to aquatic organisms under certain conditions.

12.2. Persistence and degradability
Not applicable. Once the cement has hardened, toxicity does not occur.

12.3. Bioaccumulative potential
Not applicable. Once the cement has hardened, toxicity does not occur.

12.4. Mobility in soil
Not applicable. Once the cement has hardened, toxicity does not occur.

12.5. Results of PBT and vPvB assessment
Not applicable. Once the cement has hardened, toxicity does not occur.

12.6 Endocrine disrupting properties
Not relevant.

12.7. Other adverse effects
Not applicable.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Do not discharge into sewage systems or surface waters.

Cement with a concentration of water-soluble chromium (VI) greater than 0.0002%

EWC code: 10 13 99 (Waste not otherwise specified).
Such cement must not be used/marketed except for use in closed and fully automated processes, or must be re-treated with the addition of a reducing agent.

Residues and residues of spilled dry cement

EWC code: 10 13 06 (particles and dust).
Scoop up dry cement and put in marked containers. Reuse of the product is possible, depending on the expiration date of the product. In the case of residue removal, harden the cement using water and dispose of as described in **"Cement - after adding water and hardening".**

Wet cement

Do not pour into sewers, water bodies, on soil, allow cement to harden and dispose of as described in **"Cement - after adding water and hardening".**

Cement - after adding water and hardening

EWC code: code 10 13 14 (cement waste - cement and cement slag waste) or code 17 01 01 (construction and demolition waste - concrete).
Dispose of in accordance with the requirements of local self-government legislation. Do not discharge into the sewer. Hardened cement is disposed of as waste from hardened concrete. They can only be transported to a construction waste landfill after they have hardened into ingots. Concrete waste is not classified as hazardous waste.

Packaging waste

EWC code: 15 01 01 (paper and cardboard packaging).
Completely empty the packaging and dispose of in accordance with the requirements of local government legislation.

SECTION 14: TRANSPORT INFORMATION

Cement is not subject to the requirements for the transport of dangerous goods (IMDG, IATA, ADR/RID) and classification is not required.
No special precautions are required other than those mentioned in Section 8.

14.1. UN number or ID number. Not applicable.

14.2. UN proper shipping name. Not applicable.
14.3. Transport hazard class(es). Not applicable.
14.4. Packaging group. Not applicable.
14.5. Environmental hazards. Not applicable.
14.6. Special precautions for users. 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

Cement is a mixture that is exempt from registration under REACH. Cement clinker is an exception to the registration obligation (REACH Article 2.7 (b) and Annex V.10).

Cement is subject to a restriction on the sale and use of water-soluble chromium (VI) (REACH Annex XVII, point 47, Chromium (VI) compounds).

15.2. Chemical safety assessment
No chemical safety assessment has been carried out for this mixture.

SECTION 16: OTHER INFORMATION
16.1. References to amendments
Compared to the last version, the new composite Portland cement CEM II/B-M (S-LL) 42,5R and its UFI code have been additionally added to subsection 1.1 This version has been updated to correspond to the date of 18 June 2020. requirements for the compilation of the safety data sheet of Commission Regulation (EU) 2020/878.
Revision date: 2026-01-13
Version: 3.4 /EN

16.2. Identified uses, description and categories of use
The table below lists all the typical uses of cement or other hydraulic binders that contain cement. All uses are divided into identified uses based on certain impacts on human health and the environment. Risk management measures or local controls are provided for each use (see Section 8) to be put in place by the user to ensure that the exposure of cement or hydraulic binders containing cement is maintained to an acceptable level.

PROC	Identified uses – Description of use	Production/formation	Professional/ industrial use
		building and building materials	
2	Used in closed continuous industrial processes, effects occur occasionally and are controlled, e.g. industrial or professional production of hydraulic binders	X	X
3	Used in closed periodic production process, e.g. industrial or professional production of concrete mixes	X	X
5	Mixing and mixing in periodic production processes, in the production of preparations and articles, e.g. industrial or professional production of reinforced concrete	X	X
7	Spraying in industrial environments, e.g. industrial use by wet spraying of hydraulic binders		X
8a	Loading of materials or preparations from/to ships/large containers in a place not specially adapted for this purpose, e.g. use in cement bags for mortar preparation		X
8b	Loading of a substance or preparation from/to ships/large containers in a specially adapted location, e.g. loading into silos, trucks or barges in cement plants	X	X
9	Moving materials or preparations into small containers, e.g. filling cement bags in cement plants	X	X
10	Applying adhesives and other coatings with a roller or brush, e.g. materials that improve the adhesion of building surfaces to finishing products		X
11	Spraying in non-production environments or for non-production purposes, e.g. professional use by spraying wet suspension of hydraulic binders		X
13	Treatment of products by immersion and pouring, e.g. coating of construction products with a layer that improves the performance of the product		X
14	Manufacture of preparations or articles by compression, extrusion, production of tablets and pellets, e.g. manufacture of floor tiles	X	X
19	Manual mixing, close contact using only individual safety measures, e.g.		X

PROC	Identified uses – Description of use	Production/formation	Professional/ industrial use
		building and building materials	
	wet mixture of hydraulic binders on the construction site		
22	Potentially closed processing operations with minerals/metals at high temperatures, e.g. brick production		**X**
26	Work with solid inorganic materials at normal temperatures, e.g. wet mixture of hydraulic binders	**X**	**X**

16.3. Abbreviations and acronyms

ACGIH American Hygiene Industrial Government Conference
ADR/RID European Agreement concerning the International Carriage of Dangerous Goods by Road/Rail
APF Nominal protection factor
BOELV Binding occupational exposure limit value
CAS Chemical Abbreviation Service
CLP Classification, Labelling and Packaging Regulation; Regulation (EC) No 1272/2008
COPD Chronic obstructive pulmonary disease
DNEL Derived no-effect limit value
EC50 Effective concentration of the substance with an effect equivalent to 50 % of the maximum reaction
ECHA European Chemicals Office
EINECS European List of Existing Commercial Chemicals
EPA High Efficiency Air Filter Type
ES Exposure scenario
EWC European Waste Catalogue
FF P Filtering dust half mask (disposable)
FM P Filter dust mask with filter cartridge
HEPA High Efficiency Air Filter Type
H&S Safety and health
IATA International Air Transport Association
IMDG International Code for the Carriage of Dangerous Goods by Sea
LC50 Lethal concentration in 50% of the studied population
WORST Evaluation and evaluation of the effects of the material on metals,
VS Member States
OELV Limit value in the work environment
PBT Persistent, bioaccumulative and toxic
PNEC Predicted no-effect concentration
PROC Process category
REACH Registration, evaluation, authorisation and restrictions of chemicals
RPE Respiratory Protective Equipment
SCOEL Scientific Committee on Exposure to Chemical Agents at Work
SDL Safety Data Sheet
IF One-time exposure
STP Wastewater treatment plants
STOT Specific organ-specific toxicity
TLV-TWA Threshold threshold – average value over time interval
UFI Unique Mixture Identifier
VLE-MP Exposure limit value - mean value in mg/m3 of air
vPvB Highly durable and high bioaccumulation
w/w Weight/Weight
WWTP Water treatment plants

16.4. Bibliography

(1) *Portland Cement Dust - Hazard assessment document EH75/7*, UK Health and Safety Executive, 2006 http://www.hse.gov.uk/pubns/web/portlandcement.pdf.
(2) *Observations on the effects of skin irritation caused by cement*, Kietzmann 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, U.S. 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, U.S. 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

16.5. Training advice

In addition to training programmes for health, safety and environmental protection workers, companies must ensure that their employees read, understand and apply the requirements of this SDS.

16.6. Other information

The data and test methods used for the classification of conventional cement are given or specified in subsection 11.1.

16.7 Methods for the classification and evaluation of mixtures used for classification purposes referred to in Regulation (EC) No 1272/2008

Classification according to Regulation (EC) No 1272/2008	Assessment method
Skin irritation 2, H315	Test methods
Very damaging to the eyes/ irritating to the eyes 1, H318	Test methods
Skin sensitization 1B , H317	People's experience
STOT SE 3, H335	People's experience

16.8 Note

The information contained in this safety data sheet reflects the knowledge currently available and is appropriate if the product is used in accordance with the conditions and uses specified on the packaging or in the technical recommendations. The information applies only to this material and may not apply if this material is used with other materials or used in a way other than that specified in this sheet. The user is responsible for the appropriate selection of safety measures and the application of the relevant legislation for his activities.