1. SECTION. IDENTIFICATION OF THE SUBSANCE/MIXTURE AND COMPANY

1.1. Product identifier:

Portland cement (EC No.: 266-043-4, CAS No.: 65997-15-1)

CEM I 42,5 N
CEM I 42,5 R
CEM I 52,5 N
CEM I 42,5 N-SR 3
CEM I 52,5 N SR 3
CEM II /A-LL 42,5 N
CEM II /A-M (S-LL) 52,5 N

Limestone portland cement (EC No.: 266-043-4, CAS No.: 65997-15-1)

CEM II /A-LL 42,5 N

Composite portland cement (EC No.: 266-043-4, CAS No.: 65997-15-1)

CEM II /A-M (S-LL) 52,5 N

Road binder (EC No.: 266-043-4, CAS No.: 65997-15-1)

HRB E 4

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

Use: Portland cement is hydraulic cement as finely pulverized, dry, inorganic material (powder); by reacting with water forms mortar, which sets and hardens through hydration reactions and remains hard and solid also submerged in water.

PROC3)	Use description	Production of construction materials	Professional use
2	Use in closed uninterrupted process with periodic performance control	**X**	**X**
3	Use in closed process	**X**	**X**
5	Mixing for production of new mixtures and products	**X**	**X**
7	Industrial pulverization		**X**
8a	Transportation of the mixture by commercial vessels and high capacity containers using non-specific equipment.		**X**
8b	Transportation of the mixture by commercial vessels and high capacity containers using specific equipment.	**X**	**X**
9	Placement of the mixture in small containers.	**X**	**X**
10	Rolling, brushing		**X**
11	Non-industrial pulverization		**X**
13	Cleaning of the products by submerging, rinsing		**X**
14	Production of the products and mixtures by means of compression, pelletization, granulation	**X**	**X**
19	Manual mixing in direct contact; available only for IAL		**X**
22	Potentially closed mineral/metal processing action at high temperatures in commercial equipment.		**X**
26	Operation with solid inorganic substances at room temperature	**X**	**X**

Not intended for use: See table above: not intended for use in all process categories where not assigned as „X" in corresponding field.

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

"SCHWENK Latvija" SIA
Legal address:
Lielirbes iela 17A-28, Rīga, LV-1046
Production:
Rūpnīcas iela 10, Brocēni, LV-3851,

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Phone.: + 371 67033400
e-mail: **info@schwenk.lv** | **www.schwenk.lv**

Phone: +37167033500
Fax: +37167033514
e-mail of the competent person responsible on Safety Data Sheet:
info@schwenk.lv

1.4. Emergency phone numbers:

State fire and rescue service: "01", "112"
State Emergency Medical Service: "03", "113",
Medicine and Intoxication Information Centre: 67042473 (helpline), 67042468 (Toxicology centre).
Medical assistance – 113
Manufacturer – 67033500 (weekdays 8:00 – 16:30)

2. SECTION. HAZARDS IDENTIFICATION

2.1. Classification

According to Regulation 1272/2008 (CLP) (applies from June, 1, 2015):

Mixture is classified as hazardous according to European Union Regulation 1272/2008 (CLP) and Annexes.
For mixture classification purposes calculation method applied.

Eye Dam. 1; H318 - Causes serious eye damage.
Skin Irrit. 2; H315 - Causes skin irritation.
Skin Sens. 1B; H317 - May cause an allergic skin reaction.
STOT SE 3; H335 - May cause respiratory system irritation

Mixture powder may cause respiratory system irritation.
By contact with moisture or water mixture produces highly alkaline solution.
Due to highly alkaline properties moisten mixture may cause irritation to skin and eyes.
Chromium (VI) as part of the mixture may cause allergic reactions.

2.2. Label elements:

According to Regulation 1272/2008 (CLP) (applies from June, 1, 2015):

Product identificators:

Portland cement (EC No.: 266-043-4, CAS No.: 65997-15-1)

CEM I 42,5 N
CEM I 42,5 R
CEM I 52,5 N
CEM I 42,5 N-SR 3
CEM I 52,5 N SR 3
CEM II /A-LL 42,5 N
CEM II /A-M (S-LL) 52,5 N

Limestone portland cement (EC No.: 266-043-4, CAS No.: 65997-15-1)

CEM II /A-LL 42,5 N

Composite portland cement (EC No.: 266-043-4, CAS No.: 65997-15-1)

CEM II /A-M (S-LL) 52,5 N

Road binder (EC No.: 266-043-4, CAS No.: 65997-15-1)

HRB E 4

Hazard pictograms:


GHS05


GHS07

Signal word: **Hazard!**
Hazardous ingredients: Portland cement
Hazard statements:

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H318 - Causes serious eye damage.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H335 - May cause respiratory irritation.
Precautionary statements:
P102 - Keep out of reach of children
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
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.
P302 + P352 + P333 + P313- IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: get medical advice/attention.
P261 + P304 + P340 + P312 - Avoid breathing dust/fume/gas/mist/vapour/spray. 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.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P501 – Dispose of contents/container according to local regulations.
Product weights: see label or cargo documentation.
Producer in Latvia: "SCHWENK Latvija" SIA, Rūpnīcas iela 10, Brocēni, LV – 3851, Phone: +37167033500

Special requirements for <u>retail</u> packaging: Not required.

2.3. Other hazards:

PBT or vPvB substance/mixture: Portland cement does not contain ingredients which in accordance to REACH Regulation 1907/2006 Annex XIII criteria shall be considered as persistent, bioaccumulative and toxic (PBT) substances or very persistent and very bioaccumulative (vPvB) substances.

Additional information: Moisten cement, fresh concrete or mortar in case of contact with skin may cause irritation, dermatitis or burns. Moisten cement, fresh concrete or mortar may produce corrosion on aluminium or other metals with low corrosion resistance.

3. SECTION: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture Portland cement is hydraulic cement as finely pulverized, dry, inorganic material (powder); by reacting with water forms mortar, which sets and hardens through hydration reactions and remains hard and solid also submerged in water.

3.1. Hazardous components:

Name of the substance	**Portland cement clinker** [1][2]	
EC Number	266-043-4	
CAS Number	65997-15-1	
Identificator/ REACH registration No.	Not applicable for registration. Exempt according to REACH Regulation Paragraph 2.7 (b) and Annex V Paragraph 7.	
Concentration (%)	5-100	
Classification according to Regulation 1272/2008/EC	Hazard!	
	Eye Dam. 1 Skin Irrit. 2 Skin Sens. 1 STOT SE 3	H318 H315 H317 H335
		

Mixture does not contain other ingredients which by the knowledge available for the manufacturer at this moment and by concentration applied may be classified as hazardous for environment or health and shall be reported in this section.
Index:
[1] Substances hazardous for environment or health;
[2] Substances with occupational exposure limit;
Abbreviations and explanations for R and H phrases are stated in Section 16.
Occupational exposure limits (if applicable) are stated in Section 8.

Information on othe product ingredients Contains other naturally sourced minerals which are not classified as hazardous.

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4. SECTION: FIRST AID MEASURES

4.1. Description of first aid measures

General instructions:	Personal protection for first aid providers is not required. First aid providers shall avoid contact with dry or moisten mixture.
If in eyes:	Do not rub the eyes when dry, since this mechanical stress could cause further damage to the cornea. Remove contact lenses, if present. Bow the head to the side of affected eye, open eyelids as wide as possible and immediately rinse eye (-s) with plenty of water at least for 20 minutes until all particles are washed out. Take care to avoid wash in particles into unaffected eye. If available, use isotonic saline solution (0,9% NaCl). Contact with professional medical assistant or oculist.
If on skin:	In case when dry mixture in contact with skin, clean it and rinse affected part with plenty of water. In case when moisten/wet mixture in contact with skin, rinse affected part with plenty of water. Take off contaminated clothes, footwear and other contaminated accessories (i.e. watch etc.) and throughout wash/clean them before continue to use. In case of signs of irritation or burns always seek for medical assistance.
If inhaled:	Move the victim into fresh air. Inhaled dust from throat or rhinopharynx will discharge spontaneously by coughing or sneezing. Contact doctor if irritation or other discomfort, cough or other symptoms will develop at later stage.
If swallowed:	Do not induce vomiting! If victim is conscious then flush mouth with water and give plenty of water to drink. Immediately seek for medical assistance and consult toxicology centre.

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

If in eyes:	In contact with eyes mixture (dry or moistened with water) may cause serious and, probably, unrecoverable damage to the eyes.
If on skin:	Mixture may cause irritation or dermatitis if continuously or in repeated contact with wet or sweated skin. Continuous contact with mixture may cause irritation, dermatitis or burns (i.e. by kneeling on wet mixture containing cement (concrete) it penetrates cloth of the work wear).
If inhaled:	Repeated inhalation of the dust in long term period may increase risk of pulmonary disease.
If swallowed:	Swallowing of the mixture is unlikely due to its powder state, although in case of accident mouth, throat and oesophagus irritation may occur.

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

When looking for medical assistance please provide this safety data sheet to the personnel.

5. SECTION: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable fire extinguishing media:	Mixture is not flammable. In case of fire applicable fire extinguishers shall be used for surrounding materials.
Unsuitable fire extinguishing media:	Not known.

5.2. Special hazards arising from the substance or mixture

Dry mixture is not flammable and does not support burning. By extinguishing fire with water at places where mixture stock is allocated, strong alkaline reaction of wet mixture to be considered thus consequently may cause risk for firemen health as well as may provoke unpredictable reactions with other substances.
For dry mixture explosion risk to be considered in case of high concentration of cement powder in the air.

5.3. Advice for firefighters:

Firefighters shall use suitable protective wear and individual breathing apparatus with complete face coverage and working under excessive pressure, i.e., self-contained breathing apparatus (SCBA) and all body parts covering protective wear.

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6. SECTION: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

For persons not trained for emergency:	Wear individual protective wear as per Section 8 and consider instructions as per Section 7 regarding safe handling of the mixture.
For aid providers in emergency :	Special measures or procedures are not required. Respiratory protective devices to be used in case of high concentration of the dust in the air.

6.2. Environmental precautions

Do not flush mixture in drainage, sewage or water reservoirs.

6.3. Methods and material for containment and cleaning up

Collection methods:	Spilled mixture to be collected by mechanic means and used as designated if not seriously contaminated or wetted. Use methods of dry collection, vacuum cleaner or vacuum extractor (industrial mobile devices equipped with highly effective air filters (EPA and HEPA filters, EN 1822-1:2009) or other devices which does not produce air pollution. Never use compressed air for surface cleaning. Personnel to be provided with suitable protective wear and make sure that work activities does not cause dust production. Avoid skin contact with mixture or dust inhalation. Collected mixture to be placed in suitable container for further use.
Other instructions:	In case of extremely large spill and hazard for the environment local authorities to be contacted immediately (fire and rescue service, municipality, national environment institution).

6.4. Reference to other sections

See Section 1 for contacts in emergency.
See Section 8 for suitable personal protective equipment.
For additional information on waste utilization see Section 13.

7. SECTION: HANDLING AND STORAGE

7.1. Precautions for safe handling

Suggestions	Consider instructions as per Section 8. Consider instructions for collection as per Sub-Section 6.3s. To eliminate dust and aerosol formation in the air: - Do not sweep mixture by broom; - Use dry collection methods, vacuum cleaner, vacuum extractor or other equipment which does not cause air pollution. Do not use aluminium containers for mixing of dry cement with water (fresh concrete or mortar production), as materials are not compatible.
Suggestions for workplace hygiene	Do not store mixture and do not handle it within possession of food, drinks or smoking products. In case of dusty work environment use respirators and protective eyewear. Use protective gloves to avoid direct skin contact with mixture.

7.2. Conditions for safe storage, including any incompatibilities

Product for retail is packed in 25, 35 and 40 kg paper bags. For bulk sales product may be supplied unpacked, in bulk (i.e. by rail or truck tanks).
Mixture to be stored in clean, dry (considering reduction in possibility of internal condensation formation), waterproof place, protected from moisture and contamination.
Possible risks: unpacked product may adhere or form crust at the walls of closed chamber with later sudden falloff. To avoid risks of trauma or suffocation (risk of drowning), do not enter such chambers as silos, bunkers, car cisterns and other storage facilities before relevant safety measures implemented.
Pay attention to the strength and rigidity of warehouse structures (i.e. shelf system) placing packed product for storage.

7.3. Specific end use (-s)

Suggested use as described in paragraph 1.2.

7.4. Additional information

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For cement which is processed with additives to reduce hexavalent chromium according to instructions as per Section 15, these additives losing their effect over the time. Therefore information on packing date is provided on the cement bags. Within 4 months from packing date in accordance with Standard EN 196-10 „ Methods of testing cement Part 10: Determination of the water-soluble chromium (VI) content of cement" activity of the reducing component is present and additive provides reduction of soluble Cr (VI) content less than 0,0002 % of total dry weight in cement ready for use. In current document storage conditions are described considering effectivity of additive. See paragraph 11.1 „Sensibilization".

8. SECTION: EXPOSURE CONTROLS / PERSONAL PROTECTION.

8.1. Control parameters

Occupational exposure limits (OEL):	**Latvian national (OEL)** permitted limits in work environment for product components (Latvia Cabinet Regulations dd 15.05.2007. No. 325 „Health and safety requirements for working places in contact with chemical substances"): Cement (portland cement), CAS No. 65997-15-1: OEL: 8 h. 6 mg/m³.
DNEL	DNEL – no-effect level. No-effect level of exposure to a substance above which humans should not be exposed: DNEL long term, by inhalation (8h): 6 mg/m³.
PNEC	PNEC – predicted no-effect concentration. Concentration below which exposure to a substance is not expected to cause adverse effects to species in the environment: Not applicable (hardening). Effect on environment may cause solution of the mixture with pH higher than 9.
Suggested monitoring procedures	Size for particles in dry mixture is < 80 µm. Working with mixture dust may happen to be produced with particle sizes of 4–10 µm (cement). As human is able for visual distinguishing of particles in size > 50 µm, sometimes it would not be possible to conclude presence of dust by visual observation.
Applicable occupational exposure limits	See Latvian National (OEL).

8.2. Exposure controls

Relevant technical controls:

When working with dry mixture measures to reduce formation of dust and avoiding to introduce dust into environment shall be applied, i.e. by use of closed systems, dust removal, ventilation and dry cleaning methods which do not cause dust spreading in the air.
See Addendum for **Impact scenarios.**

Individual protective measures as personal protection equipment:

Respiratory protection

When working with dry mixture risk of dust formation present, use respiratory protective equipment:
Reusable respirators and half-face masks: use P2 type dust masks and filters according to Standard EN 143.
Single use half-face masks: use FFP1 or FFP2 masks, according to Standard EN 149.
When mixture is mixed manually: FFP3 half-face masks.

Hands protection

Use impregnated, scratch and alkaline-proof gloves, preferably with internal cotton lining, according to Standard EN 374. Wash hands after work.

Eyes protection

When working with dry or wet mixture in order to avoid eye damage, use googles certified according to Standard EN 166. Wash face after work.

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Skin and body protection	 Use boots and long-sleeved protective clothing when working. Take shower after work. Always change clothes and footwear after work.
Thermal hazard	Not applicable.
Environmental risk management	General dust particle emission control to be performed in accordance with latest technical options and regulations. Aquatic environment hazard control: when mixture reacts with water alkali solution is produced and it may affect pH changes in aquatic environment. Also it may affect functioning of local water treatment facility. In case when sewage may reach water treatment facility, neutralizing of the sewage shall be considered. Land environment hazard control measures are not required.

9. SECTION: PHYSICAL AND CHEMICAL PROPERTIES

9.1. General information

Appearance	Dry cement is finely milled, hard inorganic substance (grey or white). Particles of size: 5–30 µm
Odour	Odourless
pH	11-13,5 (in water solution 1:2)
Thawing/ freezing temperature	Thawing temperature >1250 °C Freezing temperature: not applicable
Boiling point and boiling temperature range	Not applicable under normal atmospheric pressure conditions.
Ignition temperature	Not applicable. Non-flammable solid substance.
Evaporation speed	Not applicable (solid substance).
Flammability	Not applicable. Non-flammable solid substance.
Highest/lowest flammability or explosion range	Not applicable. Non-flammable solid substance.
Vapour pressure	Not applicable. Does not evaporate.
Vapour density	Not applicable. Does not evaporate.
Specific gravity	2,75-3,20
Average density /volume density	0,9-1,5 g/cm^3
Solubility	In water: Slightly soluble (0,1- 1,5 g/l)
Water/n-octanol decomposition ratio:	Not applicable (mixture of inorganic substances)
Self-ignition temperature:	Not applicable (non-pyrophoric material – cement does not consists of metal-organic, non-metal-organic compounds or phosphine organic compounds, neither their derivatives or pyrophoric components)
Decomposition temperature	Not applicable. Does not contain organic peroxides.
Viscosity	Not applicable (solid substance).
Explosion hazard	Not applicable (non-pyrophoric material – cement does not consists of metal-organic, non-metal-organic compounds or phosphine organic compounds, neither their derivatives or pyrophoric components) In case of high dust concentration in the air explosion risk presents due to spark discharge.
Oxidizing properties	Not applicable

9.2. Other information

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Chromium (VI) presence	<0,0002 %, reducers added

10. SECTION: STABILITY AND REACTIVITY

10.1. Reactivity

Dry mixture is stable under normal conditions and within suggested storage and handling temperature and pressure limits (see paragraph 7.2). Mixture reacts with water (moisture) forming silicates and calcium hydroxide. On mixing with water mixture forms solid, consistent substance (by hardening) under normal environmental conditions.

10.2. Chemical stability

Mixture is stable after prolonged storage period if stored under conditions as per Paragraph 7.2. Avoid presence of the moisture and incompatible materials. Reacts with water (moisture) forming silicates and calcium hydroxide. Silicates reacts with fluoric molecular entities.
Mixture is alkaline and reacts with acids and aluminium salts.

10.3. Possibility of hazardous reactions

Hazardous reactions are not known. Hazardous polymerization does not happen.

10.4. Conditions to avoid

Acids, ammonium compounds.
Presence of the moisture forms hard clusters and reduces quality of the mixture.

10.5 Incompatible materials

Acids, ammonium compounds,
Moisten cement, fresh concrete or mortar may destroy aluminium or other metals with low resistance to corrosion.

10.6 Hazardous decomposition products

Product does not decompose under standard storage and handling temperature and pressure conditions.

11. SECTION: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

For mixture classification purposes calculation method applied.

	Mixture classification	Compound (components)
Acute toxicity	Based on available data classification criteria does not applies.	**Cement (CAS: 65997-15-1):** *Oral: data not available* *Dermic: rabbit, 24 h, 2000 mg/kg – no lethal cases* [3]. *Inhalation: (by inhalation/rat,4h/day/3months): >1 g/m³.* [3] *No lethal cases.* [3]
Irritation / Causticity	Irritates respiratory system and skin Risk of serious damage to the eyes --- Serious damage to the eyes/ eyes irritation, Produces serious damage to the eyes Skin corrosion/ irritation, Irritates skin. Toxic impact on target organ – single exposure, irritation of the respiratory tract. May produce respiratory irritation.	**Cement (CAS: 65997-15-1):** *Skin: OECD 404, 1981, rabbit, 4h: moistened cement as 1g with 1, 4 ml of water produces skin irritation.* *Eyes: produces irritation, index 128.* *Respiratory tract: produces irritation.*
Sensitization	In contact with skin may cause sensitization. --- Skin sensitization, May cause allergic reaction.	**Cement (CAS: 65997-15-1):** *For product in retail package addition of ferric (II) sulphate (<1%) provides content of chromium (VI) < 0,0002 % for 4 months from date of packing. Although, considering limited lifetime of reducing component, practical considerations and habits on cement use as well as unpredictable reaction of human immune system, manufacturer considered as*

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		reasonable to use R43 /H317 classification for the mixture.
Toxicity on repeated exposure	Based on available data classification criteria does not applies.	**Cement (CAS: 65997-15-1):** *No data on toxicity for repeated exposure available. Impact is acute at high concentration. Chronic effects at low concentrations are not known.*
Carcinogenity	Based on available data classification criteria does not applies.	**Cement (CAS: 65997-15-1):** *Epidemiological studies and literature sources, as well as in vitro research with animals does not show carcinogenity.*
Mutagenity	Based on available data classification criteria does not applies.	**Cement (CAS: 65997-15-1):** *Data on mutagenity is not available.*
Toxicity to reproductive system	Based on available data classification criteria does not applies.	**Cement (CAS: 65997-15-1):** *Data on reprotoxicity is not available.*
Hazard of aspiration	Does not applies to the product (powder).	
Specific Target Organ Toxicity (STOT)	Based on available data classification criteria does not applies.	**Cement (CAS: 65997-15-1):** Single exposure: Cement dust may irritate respiratory system. Cough, sneezing and respiratory disturbance in case of excess of occupational exposure limit. Repeated exposure: Repeated inhalation of significant dust within prolonged period may induce development of pulmonary diseases.

Possible ways of impact	By ingestion (swallowing): Swallowing is unlikely due to powder state of the mixture, although in case of accident irritation of mouth, throat and oesophagus may be observed. By inhalation: Cement dust may irritate respiratory system. Symptoms: cough, sneezing and breath disturbances. Repeated inhalation of the dust within prolonged period of time may induce development of pulmonary diseases. In contact with skin: Continuous contact with mixture may cause irritation, dermatitis or burns. In contact with eyes: May cause serious and, probably, unrecoverable damage to the eyes.
Symptoms caused by physical, chemical and toxic properties	Mixture dust may provoke worsening of present pulmonary disease state (i.e. emphysema, asthma), as well as present skin and eye diseases. Mixture dust may irritate throat and respiratory system. Cough, sneezing, breathing problems may be observed.
Delayed or immediate, as well as chronic symptoms caused by single or continuous exposure	Dermatitis, eczema, conjunctivitis or pulmonary diseases may develop in employees continuously contacting with cement. Continuous (for several years) inhalation of cement dust may cause professional pulmonary disease – cement dust pneumoconiosis. Symptoms are inflammation of pulmonary system, bronchitis and mild emphysema. As cement contains chromium components with allergic properties, pneumoconiotic bronchitis may have asthmatic components.
Interaction	Information not available.
Other toxicity information	Information not available.

12. SECTION: ECOLOGICAL INFORMATION

12.1. Toxicity

	Mixture	Compounds (components)
Acute toxicity in	Based on available data classification	**tland cement (CAS: 65997-15-1):** duct is not hazardous for environment. Ecotoxicity tests for portland cement influence on *Daphnia magna* [5] and *Selenastrum coli* [6] not showed significant toxic impact.

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aquatic environment	criteria does not applies.	Thus is not possible to determine LC_{50} and EC_{50} values [7]. Also toxicity to sediments is not observed [8]. Though by adding large quantity of cement to the water pH level may increase consequently toxic impact on aquatic life in certain conditions.
Chronic toxicity in aquatic environment	Based on available data classification criteria does not applies.	**tland cement (CAS: 65997-15-1):** *a not available*

12.2. Persistence and degradability
Not applicable as mixture consists of inorganic substances. On setting product is not hazardous for environment.

12.3. Bioaccumulative potential
Not applicable as mixture consists of inorganic substances. On setting product is not hazardous for environment.

12.4. Mobility in soil
Not applicable as mixture consists of inorganic substances. On setting product is not hazardous for environment.

12.5. Results of PBT and vPvB assessment
Does not contain *PBT* and *vPvB* substances

12.6. Other adverse effects
When mixture reacts with water alkali solution is produced and it may increase pH in aquatic environment (increase of alkaline properties). It may affect aquatic life or functioning of water treatment facilities.

13. SECTION: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods (according to Directive) 2008/98/EC

Unused mixture

Waste hazard code: H4 Irritant: substances and products in case of direct, repeated or extended contact with skin or mucus producing irritation or inflammation reaction.
Waste classificator: 101311 – Other composite cement materials which does not comply with class 101309 or 101310. Waste considered as hazardous.
Waste recovery method: R5 recycling or reclamation of inorganic materials.
Inorganic mixtures containing cement are recyclable.
Does not allow effluents to come into drainage, water reservoirs or sewage.
Hazardous or production waste shall be forwarded to the waste management company licenced for waste collection, transportation, transferring, sorting or storage either licenced for recycling according to legislation on pollution control.
See Section 8 regarding suitable personal protection equipment required to use when recycling.

Used product

Further classification relates to set (hardened) mixture or sorted construction waste with separated cement-contained waste.
Waste hazard code: not classified as hazardous
Waste classificator: 170101 - Concrete. Waste considered as non-hazardous.
Waste recovery method: R5 recycling or reclamation of inorganic materials.
Inorganic mixtures containing cement are recyclable.
Hazardous or production waste shall be forwarded to the waste management company licenced for waste collection, transportation, transferring, sorting or storage either licenced for recycling according to legislation on pollution control.

Packaging

Completely empty package and process it in accordance with local regulations.
15 01 01 – Packaging of paper and cardboard.

14. SECTION: TRANSPORT INFORMATION

Mixture is not applicable to be classified for transport/shipping by truck, rail, sea, local waterways or by air.
At the time of transportation health and safety instructions as per Section 8 to be followed.

	Road transportation ADR/RID	Transportation by local waterways ADN	Sea transportation IMDG	Air transportation ICAO/IATA
14.1. UN No.	-	-	-	-
14.2. UN proper shipping name	-	-	-	-
14.3Transport hazard class	-	-	-	-

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14.4. Packing group	-	-	-	
14.5 Environmental hazards	-	-	-	-
14.6 Special precautions for user	-	-	-	-
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.	-	-	-	-

15. SECTION: REGULATORY INFORMATION

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

Republic of Latvia:
"Law on Chemical Substances" (01.04.1998).
Cabinet Regulation No. 107 "Order of Classification, Packaging and Labelling of Chemical Substances and Chemical Products" (12.03.2002).
Cabinet Regulation No. 325 „ Labour Protection Requirements when Coming in Contact with Chemical Substances at Workplaces" (15.05.2007).
Cabinet Regulation No. 302 „The requirements for waste classification and properties which represents hazardous waste" (19.04. 2011).
Cabinet Regulation No.319 "The requirements for waste recovery and disposal" (26.04. 2011).

European Union:
EC Regulation (EC) 1907/2006 (18.12.2006) concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH);
EP and EC Regulation (EC) 1272/2008 (16.12. 2008) on classification, labelling and packaging (CLP).
ADR - The European Agreement concerning the International Carriage of Dangerous Goods by Road, signed in Geneva, 30.09.1957, with amendments;
RID - International Rule for Transport of Dangerous Substances by Railway as Annex C for Convention on International Carriage by Rail (COTIF), signed in Vilnius, 03.06.1999, with amendments.
ADN – European Agreement on the transport of dangerous goods by inland waterways, signed in Geneva, 26.05.2000, with amendments;
IMDG Code - International Maritime Dangerous Goods Code;
ICAO/IATA IATA – International air transportation agreement. ICAO - International Civil Aviation Organization

15.2. Chemical safety assessment

Chemical safety assessment was not performed as substance is not applicable for registration.

16. SECTION: OTHER INFORMATION

Safety data sheets to be provided at work places (stations) and to be freely accessible for personnel.

Abbreviations and H—phrases according to Regulation 1272/2008/EK:

Eye Dam. 1 / Serious eye damage/eye irritation, Hazard category 1. H318 Causes serious eye damage.
Skin Irrit. 2 / Skin corrosion/irritation, Hazard category 2. H315 Causes skin irritation.
Skin Sens. 1 / Skin sensitization, Hazard category 1. H317 May cause an allergic skin reaction.
STOT SE 3 Specific Target Organ Toxicity – single exposure, Hazard category 3. Respiratory system irritation. H335 May cause respiratory system irritation
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References
1) Safety data sheet for cement, version 1, not dated.
2) „Darba medicīna", 2nd edition. Rīga, 2012.
3) Guidance on information requirements and chemical safety assessment (Chapter R.12: Use descriptor system Version 2, March 2010, ECHA-2010-G-05-EN).
4) U.S. EPA, Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, 3rd ed. EPA/600/7-91/002, Environmental Monitoring and Support Laboratory, U.S. EPA, Cincinnati, OH (1994a) and 4th ed. EPA-821-R-02-013, US EPA, office of water, Washington D.C. (2002).
5) U.S. EPA, Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, 4th ed. EPA/600/4-90/027F, Environmental Monitoring and Support Laboratory, U.S. EPA, Cincinnati, OH (1993) and 5th ed. EPA-821-R-02-012, US EPA, office of water, Washington D.C. (2002).
6) 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.

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

Earlier versions:
Safety data sheet for cement, version 1, not dated.
Safety data sheet for cement, version 2, dated 14.11.2012.
Safety data sheet for cement, version 3, dated 14.07.2014.
Safety data sheet for cement, version 4, dated 22.05.2017.
Safety data sheet for cement, version 5, dated 05.10.2018.

Latest revision:
6th version: 26.06.2019.

Created by: SIA "Kompetences centrs", 06.12.2012.

Issuer Declaration:
Document is developed based on the best knowledge of product and in accordance with legal regulations on chemical substances and approved component exposure scenarios at the time of development. Information as provided in safety data sheet is intended for product use only as purposed. User of the product is obligated to use it only as intended by manufacturer. User have to notify supplier when product will be used in a way which not stated in this safety data sheet.

Annex

Exposure scenarios

Exposure scenario	PROC*	Exposure	Respiratory protection equipment *(RPE)* specification	*RPE* effectivity – Assigned protection factor *(APF)*
Industrial production/mixture preparation of the hydraulic building and construction materials	2, 3	Time of exposure is not limited (up to 480minutes per shift, five 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 building and construction materials (indoors and outdoors)	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
Industrial use of wet hydraulic building and construction material suspensions	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 construction materials (indoors and outdoors)	2		P1 mask (FF, FM)	*APF* = 4
	9, 26		A) P2 mask (FF, FM) or B) P1 mask (FF, FM)	*APF* = 10 *APF* = 4

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Exposure scenario	PROC*	Exposure	Respiratory protection equipment *(RPE)* specification	*RPE* effectivity – Assigned protection factor *(APF)*
	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 use of wet hydraulic building and construction material suspensions	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	-

* PROC – known use as per Paragraph 1.2.

END OF THE SAFETY DATA SHEET

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