

SAFETY DATA SHEET

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According to Regulation (EC) 1907/2006 (REACH)
and Regulation (EC) 1272/2008 (CLP)

Release date: 18.8.2021 (Version 1.1 EN)

Name of the product:

Dry cement mixtures

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

1.1 Product identifier

Dry cement mixtures

Another name of the substance or mixture

Trade name / designation:

(Fortedur, Fornivel, FortegROUT, Forcem)

FORTEDUR 1010, 1011 Wet, 1020, 1021 Wet, 1025, 1026 Wet, 1030, 1031 Wet, 1040, 1041 Wet, 1090, 1091 Wet, FS1**FORNIVEL 1110, 1111 CS, 1120, 1121 CS, 1130, 1131 CS****FORTEGROUT 1205, 1210, 1220****FORCEM 1310, 1311 CS**

Registration number (submission number):

It is a mixture. They were verified registration of individual components.

ES Number (EINECS):

none, it is a mixture

CAS No.:

not applicable

Index No:

not applicable

Form:

Mixture, is not in nano form nor does it contain ingredients in nano form

UFI:

FORTEDUR

9QS2-00NA-Q00V-XG4T, J6U2-M0D2-X009-591W, GSU2-506V-200R-TP4C, HDV2-Q01N-7007-E26T, CUW2-90SD-E00M-PV3W, WFX2-U0M5-K003-986C, G1Y2-D0EX-Q00J-XN8T, KH03-005P-W00Y-6F5W, A313-J00G-200E-TU8C, J2YS-40KH-U00W-TJFA, TPYS-P0EA-000C-EXHS, 390T-7083-400U-2AM7, 8A2T-C0TM-G00Q-XHKS, 9X2T-W0ND-N005-JWP7, 205T-206X-0002-F3NS, X6K5-P0Q3-5007-17XS, PSK5-70HV-900P-PN17, QDM5-S0CN-F005-913P, DUN5-D03D-N00J-JU0S, 3FP5-W0X5-T001-5737, P1Q5-F0RX-X00G-TM5P, NHR5-20GQ-400W-2E2S, N3S5-M0AG-900C-PT57, NQS5-5058-E00U-A67P, H410-D0GJ-C00G-E45G, AR10-X0AA-G00X-1H7X, R630-J022-Q00C-9A51, KS30-20VU-U00T-XQ7G, JU50-70FD-600P-TW71, THJ0-20AC-V000-SAFT, KF3C-E0Q2-600H-Q9GG, ASA8-90UV-H00M-JKX3, WDC8-U0PN-P003-500J, IUD8-F0ED-V00G-ESWN, RFE8-0086-000Y-2603, F1F8-J02Y-500E-PK2J, CGG8-40TQ-C00U-XCYN, 6991-607K-1004-2SVW, SD3C-X00N-W000-1XWE, YU4C-H0RE-300E-9RTH, Y38C-R0YG-R007-EQXY

FORTEDUR WET

4UVE-M02E-A00C-5QQD, 8EWE-40W6-F00U-T3SU, E1XE-P0QY-M009-EGV9, QGYE-90FQ-T00Q-P9SD, 030F-U09G-Y005-9PUU, AP0F-D049-300N-X2X9, F91F-W0Y2-8003-JG0R, ER2F-H0PT-F00H-T8WU, SC3F-20HK-K00Y-FP09, 9ENH-7076-P00S-P2PQ, F1PH-S01Y-U007-9FS5, NGQH-C0SR-100N-J8P8, 23RH-W0MH-6003-5NRQ, NPRH-F0F9-A00K-T1U5, N9SH-0092-G001-FEWM, KRTH-M00T-P00F-P7TQ, JCUH-40UK-T00W-AMW5, EWVE-30RT-M00V-U29F, UHWE-N0KK-S00A-FFCW, 2S0F-V0TP-E004-KEHC, 9GT2-J0UW-G00A-VJDD, K3U2-30PP-M00S-HXFU, XCX2-A0WS-800K-NWM9, 51EM-U0D0-2005-5EP1, PGFM-F03R-800K-E7K4, 49HM-20M2-P00Y-ADTG, SRJM-P0AT-W00D-J6QK, VG6Q-H0ER-G00H-96G0, 727Q-208H-M00Y-XKJF, OCAQ-90GM-800S-2JPW, 8PA8-T05G-7004-V8C1, 5CE8-G0JS-Q00F-DUE1

FORNIVEL

12T2-10DW-X00U-KUG2, V4C8-A0MF-R00K-6Y8C, 2QC8-V0F7-W002-TCAT, MAD8-E091-100H-FRE8, 4SE8-100S-700X-QJAC, QDF8-J0UJ-D00D-AXDT, 9YF8-30PA-H00V-YAG8, QKG8-N0H3-P00A-KQJQ, 41J8-807U-V00R-UHFT, WNJ8-T02N-1006-FWJ8, 4AVE-J0X1-G00D-6P70, NSW5-50NS-P00T-FG43, 2DXE-Q0GJ-U008-2V6J, NYXE-80AA-Y00R-Q890, TKYE-T054-4006-ANCF, 811F-D0VV-A00M-KF8J, 9N1F-X0QN-G002-6UC0, 872F-G0JE-M00J-U7EF

FORNIVEL CS

3PJ5-N0JQ-A008-26FD, 0Q3C-X0S8-4000-PA7P, TA4C-G0M1-800F-AQA4, AS5C-30AS-F00V-KH77, RD6C-N05J-M00A-6W9P, WK7C-Q0U3-W008-FFPK, ASNH-70YS-W00R-AF0Y, 2CPH-S0TK-2006-XU3E, 2YPH-A0NC-600P-K75V, 0KQH-V0G4-C004-6M8A, HNSH-101N-Q000-377V

FORTEGROUT

MG10-E084-K00F-2GGR, RY5Q-G09C-N00J-A4YM, 5JXS-30F5-000X-UGXX

FORCEM

DT90-H06N-900F-7M10, 39K0-M0HX-M00F-QDQD

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

Relevant identified uses - construction (industrial flooring)

Uses advised against – not known

1.3 Details of the supplier of the safety data sheet

Supplier/manufacturer/ importer

Name:

FORTEMIX s.r.o.

Address

Kirilovova 812

739 21 Paskov

CZECH REPUBLIC

Information contact

E-Mail (competent person)

mfo@fortemix.eu

Telephone:

+420 558 638 311 +420 558 638 310

Competent person responsible for the safety data sheet: Ing. Miroslava Strockova

[ENVIFORM a.s.](#)

miroslava.strockova@trz.cz

+420 558 537 381

1.4 Emergency telephone number

Toxicological information Centre:

+420 224 919 293

Na Bojisti 1, 128 08 Praha 2

+420 224 915 402

(+420 224 914 575)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Eye Dam.1, H318, STOT SE 3 H 335, Skin Irrit. 2 H315, Skin Sens.1B H 317

Signal word: Danger

**Hazard statements**

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

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Precautionary statements

P102 Keep out of reach of children.

P202 Do not handle until all safety precautions have been read and understood..

P260 Do not breathe dust.

P280 Wear protective gloves/protective clothing/eye protection/face protection

P302+P352 IF ON SKIN: Wash with plenty of water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

P271 Use only outdoors or in a well-ventilated area.

P391 Collect spillage.

Note: none

Adverse physicochemical effects:

During use may cause dust.

Adverse human health effects and symptoms:

Irritating to eyes, skin and respiratory tract. Eye contact with cement (dry and wet) may cause serious and potentially irreversible injuries. Cement may have after prolonged contact irritant effect on moist skin (due to sweating or wet) or the repeated contacts cause contact dermatitis.

Prolonged skin contact with wet cement or concrete may cause serious burns (corrosion) because it develops the initial absence of pain (eg. Kneeling in wet concrete and despite clothing). Long-term repeated inhalation of cement for general use increases the risk developing lung diseases.

Adverse environmental effects:

Local dust may cause contamination of water and soil.

Other hazards: Dust.

Concentration limits from the approved classification and labeling list:

not specified

Components that must be listed on the label: Portland cement, Aluminous cement

2.2 Label elements

Fortemix, s.r.o. Kirilovova 812, Paskov 739 21 CZECH REPUBLIC Dry cement mixtures (Fortedur, Fornivel, Fortegrout, Forcem) Components: Portland cement, Aluminous cement	Danger 	Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. May cause respiratory irritation. Keep out of reach of children. Do not handle until all safety precautions have been read and understood. Do not breathe dust. Wear protective gloves/protective clothing/eye protection/face protection. IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. Use only outdoors or in a well-ventilated area. Collect spillage.
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2.3 Other hazards

Other adverse hazards:

The mixture is neither PBT nor vPvB. The mixture neither on the list of endocrine disruptors, nor does it contain an ingredient that would be on the list of endocrine disruptors. (according to the list from 2.7.2021).

SECTION 3. Composition/information on ingredients

3.1 Substances

Not applicable. It is a mixture.

3.2 Mixtures

Substance name	EINECS	CAS	Concentration	Classification according Regulation (EC) No. 1272 [CLP]
Portland cement	266-043-4	65997-15-1	< 20	Skin Irrit. 2, Skin Sens. 1B, Eye Dam.1, STOT SE 3 H315, H317, H318, H335
Aluminous cement *	266-045-5	65997-16-2	< 30	Skin Irrit 2, Eye Dam.1 H315, H318

* Fortedur products do not contain Aluminous cement

Specific concentration limit, The M-factor and the Acute Toxicity estimate (ATE)

No specific concentration limits, M-Factors, acute toxicity estimate (ATE) have been determined for the substance.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information:

If the individual is not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. When cardiac arrest occurs it is necessary to start indirect heart massage immediately; If unconscious, place in recovery position and get medical attention immediately.

Inhalation:

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Seek medical help if coughing or other symptoms persist.

Skin contact:

Quickly remove contaminated clothing, shoes, and leather goods such as watchbands and belts. Quickly and gently blot or brush away excess mixture. Immediately wash thoroughly with lukewarm, gently flowing water and non-abrasive pH neutral soap. Seek medical attention for rashes, burns, irritation, dermatitis and prolonged unprotected exposures to wet cement, cement mixtures or liquids from wet cement.

Eye contact:

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention immediately. Call a poison center or physician.

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Ingestion:

Have victim rinse mouth thoroughly with water. Do not induce vomiting. Give victims a small amount of water to drink (2-5 dl) with 5 charcoal tablets. Stop giving water when exposed person feels sick as vomiting may be dangerous. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs.

4.2 Most important symptoms and effects, both acute and delayed

Acute symptoms

Mixing a mixture with water or moisture forms a strongly alkaline mixture irritants. Product in powder form and mixed with water irritates the conjunctiva, the mucosa of the respiratory tract and skin. Repeated contact most often wet mixture with unprotected skin can cause irritation of the skin (irritant contact dermatitis); for some people it may lead to the development of allergic contact dermatitis. Dermatitis is manifested by itching skin inflammation. At first sight, the skin is red, flaky. Contact the mixture with the eyes has irritating effects, massive intervention insufficient treatment (requiring immediate eyewash for a few minutes) can cause a chemical burn to the eye inflammation.

Eyes: Eye contact with cement (dry and wet) may cause serious and potentially irreversible injury.

Skin: After prolonged contact the cement may cause an irritant effect on moist skin (due to sweating or wet) or the repeated contacts cause contact dermatitis. Prolonged skin contact with wet cement or concrete may cause serious burns because it develops the initial absence of pain (eg. Kneeling in wet concrete despite clothing).

Chronic symptoms

Inhalation: Long-term repeated inhalation of cement for general use increases the risk developing lung diseases.

Systemic effects: lungs

4.3 Indication of any immediate medical attention and special treatment needed

Show this safety data sheet to doctors.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Common cements are not flammable.
Extinguishing powder, CO₂, water spray.

Unsuitable extinguishing media

Direct stream of water.

5.2 Special hazards arising from the substance or mixture

Cements are not flammable / combustible and explosive, and do not support combustion or other materials.

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5.3 Advice for fire-fighters

Product (mixture) as such is non-flammable. Firefighters equipment depends on the substances / compounds, which are stored together with the product. Clothing that does not comply with EN469 is not suitable for chemical accidents. EN 469 - Protective clothing for firemen.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes and mucosa. When disposing of accidental spillage, use personal protective (protective clothing, closed shoes). If there is an accident or fire, wear self-contained breathing apparatus. During work and after its completion, wash your hands with soap and water, do not eat, drink or smoke.

6.1.1 For non-emergency personnel

Keep unauthorized persons away from the affected area. Do not enter the affected area without personal protective equipment.

6.1.2 For emergency responders

Avoid swirling dust.

6.2 Environmental precautions

Prevent the spread of drains, surface water and groundwater. Do not pour into drains.

6.3 Methods and material for containment and cleaning up

Pick back leaked mixture (spillage, spilling) into the intact packaging and use, if not dirty or damaged. If not possible to use leaked mixture, then dispose it in accordance with applicable waste regulations. Keep area thoroughly clean.

Cleaning

Do not sweep a dry product. The dry cleaning methods include suction or vacuuming (industrial portable units, equipped with air filters with high efficiency against particles or similar devices) which reduce dust emissions into the atmosphere and do not cause scattering / dusting. Never use compressed air.

It is also possible to wet cleaning (water spray, fine water mist) at which prevents whirling powder. Wipe off the dust and remove the formed sludge in accordance with legislation. During the wet cleaning, when it is not possible to use vacuuming and cleaning with brushes, ensure that workers wear appropriate personal protective equipment and prevent dust whirling. Avoid inhalation of cement and contact with skin. Collect spilled material into a container and use it.

6.4 Reference to other sections

See more information in Section 8 and Section 13.

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid excessive dust. Avoid contact with skin, eyes and mucosa. Wear personal protective equipment (dust mask, if necessary, respirator and goggles or gloves). After completing work, wash hands thoroughly with soap and warm water. It is forbidden to eat, drink or smoke during the work. When handling, comply relevant safety precautions. Handle a mixture (product) in well-ventilated areas.

Use dry cleaning methods (i.e. as described in 6.3) as the cleaning with a vacuum or suction, which reduce dust emissions into the atmosphere. Do not sweep product dry.

7.2 Conditions for safe storage, including any incompatibilities

Store in original the intact packaging in a dry, well-ventilated and insulated place. Keep away from foods and animal feeds.

7.3 Specific end uses

In construction (industrial flooring)

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredient name	Exposure limits
Portland Cement Clinker	ACGIH TLV (United States, 3/2012). TWA: 1 mg/m ³ 8 hours. Form: Respirable NIOSH REL (United States, 6/2009). TWA: 5 mg/m ³ 10 hours. Form: Respirable TWA: 10 mg/m ³ 10 hours. Form: Total OSHA PEL (United States, 6/2010). TWA: 5 mg/m ³ 8 hours. Form: Respirable TWA: 15 mg/m ³ 8 hours. Form: Total
Aluminium cement	Particulates not otherwise specified/classified UK / WEL (Workplace exposure limits, EH40/2005, 2007) : Total Dust TWA=10mg/m ³ Respirable dust TWA=4mg/m ³ USA / OSHA PEL (Occupational Safety and Health Administration, Permissible Exposure Limits) : Respirable fraction TWA=5mg/m ³ Total fraction TWA=15mg/m ³ ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010) : Respirable particulates TWA =3 mg/m ³ Inhalable particles TWA=10mg/m ³

DNEL and PNEC

It is a mixture and therefore not prepared dossiers and determined DNELs and PNECs.

DNEL and PNEC for Portland cement

DNEL inhal. (8h): 3 mg/m³
DNEL dermal: not applicable
DNEL oral: not applicable

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DNELs apply to respirable dust while the exposure estimates for the instrument MEAS reflect respirable (inhalable) fraction. Therefore, the additional safety margin is inherently part of the assessment of risk management and derivative risk management measures. or workers, there is no DNEL for cements dermal (skin) exposure, even safety studies or from human experience. Because cements are classified as skin and eyes irritant, dermal exposure must be reduced to the technically feasible minimum.

PNEC aquatic: not applicable
PNEC sediment: not applicable
PNEC soil: not applicable

Assessment of exposure to the aquatic environment is based on possible changes in pH. Calculating exposure is carried out evaluating the impact of the Resulting pH. The pH of the surface water, groundwater and water for the wastewater treatment plant should not exceed 9.

DNEL and PNEC for Aluminium cement

DNEL	Workers							
	Long term exposure - systemic effects.		Long term exposure - local effects.		Acute toxicity short-term exposure - systemic effects		Acute toxicity short-term exposure - local effects	
	Inhal. mg/m ³	Dermal mg/kg bw/day	Inhal. mg/m ³	Dermal mg/kg bw/day	Inhal. mg/m ³	Dermal mg/kg bw/day	Inhal. mg/m ³	Dermal mg/kg bw/day
Cement, alumina	2,5	n.d.	n.d.	n.d.	5	n.d.	n.d.	n.d.

www.echa.eu

PNEC (mg/l) (mg/kg)	freshwater	Marine water	intermittent releases	STP	Sediment (fresh water)	Sediment (marine water)	Soil	Air
Cement, alumina	260	n.d.	260	10	n.d.	n.d.	n.d.	n.d.

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DNEL (Derived No-Effect Level)

PNEC (Predicted No-Effect Concentration)

8.2 Exposure controls

Workers must be provided with personal protective equipment, which must be maintained in an increasingly usable condition and damaged immediately replaced. Ensure good ventilation (extraction) workspace. Practice good hygiene work with chemicals and store and handle in accordance with all current regulations and standards applicable to working with chemicals. After work, wash hands with soap and water, treat with a regeneration cream.

8.2.1 Appropriate engineering controls

Not have been established. Based on the parameters from the Section 8.1

8.2.2 Appropriate engineering controls

Respiratory protection: In case of insufficient ventilation, wear a protective mask type FFP2

Hand protection: protective gloves, protective cream.

Eye protection: safety goggles or face shield.

Skin protection: protective clothing, protective footwear.

Thermal hazards: no data.

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PPE and their use must be in accordance with Regulation (EU) 2016/425

Worker exposure control

Workers must be provided with personal protective equipment, which must be kept in usable condition at all the times. Ensure good ventilation of the work area. Dust must be avoided. Keep the principles of occupational hygiene and store and handle in accordance with all normal procedures.

8.2.3 Environmental exposure controls

Do not discharge into the sewer, surface water or soil.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Physical state	solid / powder
b) Colour	grey
c) Odour	no odor
d) Melting point/freezing point	n.a
e) Boiling point or initial boiling point and boiling range	n.a
f) Flammability	n.a
g) Lower and upper explosion limit	n.a
h) Flash point	n.a
i) Auto-ignition temperature	n.a
j) Decomposition temperature	n.d.
k) pH	above 12
l) Kinematic viscosity	n.a
m) Solubility	n.a
n) Partition coefficient n-octanol/water (log value)	n.d.
o) Vapour pressure	n.a
p) Density and/or relative density	n.a
q) Relative vapour density	n.d.
r) Particle characteristics	not nanoparticles FORTEDUR/FORTEDUR WET 0-4mm Výjimka FORTEDUR 1091 je 0-0,5mm FORNIVEL 0-1mm FORTEGROUT 1205 0-0,5mm FORTEGROUT 1210 0- 4mm FORTEGROUT 1220 0-8mm FORCEM 0-4mm

9.2 Other information

9.2.1. Information with regard to physical hazard classes

- (a) Explosives: n.a.
- (i) sensitivity to shock;
 - (ii) effect of heating under confinement;
 - (iii) effect of ignition under confinement;
 - (iv) sensitivity to impact;
 - (v) sensitivity to friction;
 - (vi) thermal stability;
 - (vii) package

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(b) Flammable gases n.a.

- (i) the TCi (maximum content of flammable gas which, when mixed with nitrogen, is not flammable in air, in mol. %);
- (ii) the fundamental burning velocity
- (i) explosion limits
- (ii) fundamental burning velocity

(c) Aerosols n.a.**(d) Oxidising gases n.a.****(e) Gases under pressure n.a.****(f) Flammable liquids n.a.****(g) Flammable solids n.a.**

- (i) burning rate, or burning time as regards metal powders,
- (ii) statement on whether the wetted zone has been passed;
- (h) Self-reactive substances and mixtures
- (i) decomposition temperature,
- (ii) detonation properties,
- (iii) deflagration properties,
- (iv) effect of heating under confinement,
- (v) explosive power, if applicable;

(i) Pyrophoric liquids n.d.**(j) Pyrophoric solids n.d.****(k) Self-heating substances and mixtures n.d.****(l) Substances and mixtures, which emit flammable gases in contact with water n.d.****(n) Oxidizing solids n.a.****(o) Organic n.d.**

- (i) decomposition temperature,
- (ii) detonation properties,
- (iii) deflagration properties,
- (iv) effect of heating under confinement,
- (v) explosive power;

(p) Corrosive to metals n.d.

- (i) metals that are corroded by the substance or mixture,
- (ii.) corrosion rate and statement on whether it refers to steel or aluminium,
- (iii.) reference to other sections of the safety data sheet with regard to compatible or incompatible materials.

(q) Desensitised explosives n.d.**9.2.2. Other safety characteristics****(a) mechanical sensitivity n.d.****(b) self-accelerating polymerisation temperature n.a.****(c) formation of explosible dust/air mixtures n.d.****(d) acid/alkaline reserve n.d.****(e) evaporation rate n.d.****(f) miscibility n.d.****(g) conductivity n.d.****(h) corrosiveness n.d.****(i) gas group n.d.**

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(j) redox potential n.d.

(k) radical formation potential n.d.

(l) photocatalytic properties n.d.

Other physical and chemical parameters n.d.

SECTION 10: Stability and reactivity

10.1 Reactivity

Mixture is stable with proper handling and storage. After mixing with water, the cement hardens into a stable mass that is not reactive in a normal environment.

10.2 Chemical stability

Dry cements are stable as long as they are properly stored and are compatible with most other building materials. It is necessary to keep them dry. It should avoid contact with incompatible materials.

10.3 Possibility of hazardous reactions

Reactions with acids. Portland cement is dissolved in hydrofluoric acid to produce corrosive gas silicon tetrafluoride. Cement reacts with water to form silicates and calcium hydroxide. Silicates in cement react with strong oxidizing agents such as fluorine, boron fluoride, chloride, fluoride, manganic and oxygen difluoride.

10.4 Conditions to avoid

Wet conditions during storage may cause lump formation and loss of product quality.

10.5 Incompatible materials

Acids, ammonium salts, aluminum or other non-noble metals. Avoid uncontrolled use of aluminum powder, rise / evolving hydrogen.

10.6 Hazardous decomposition products

n.d.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

a) Acute toxicity

Portland cement

LD₅₀ = 2000 mg/kg bw, dermal, rabbit

Aluminum cement

LD₅₀ > 2000 mg/kg bw, oral, rat

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LD₅₀ > 2000 mg/kg bw, dermal, rat

LC₅₀ = 7,6 mg/L, inhal., rat

b) Skin corrosion/irritation

irritates eyes and skin, high concentrations in working environment can irritate airways

c) Eye damage/irritation

Dust may cause slight irritation to the ocular mucous membranes due to the presence of a foreign body.

d) Sensitisation to the respiratory tract/skin

for highly sensitive persons is danger of sensitization on prolonged contact with skin

e) Germ cell mutagenicity

n.d.

f) Carcinogenicity

n.d.

g) Reproductive toxicity

n.d.

h) Specific target organ toxicity (single exposure)

n.d.

i) Specific target organ toxicity (repeated exposure)

n.d.

j) Aspiration hazard

n.d.

Information on likely routes of exposure

Eye contact: Causes serious eye damage.

Inhalation: May cause respiratory irritation.

Skin contact: Causes severe burns. May cause an allergic skin reaction.

Ingestion: May cause burns to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation: respiratory tract irritation, coughing

Skin contact: pain or irritation, redness, blistering may occur, skin burns,

Eye contact: pain, watering, redness

Ingestion: stomach pains

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Mixing a mixture with water or moisture forms a strong alkaline mixture which is irritants. Product in powder form and mixed with water to irritate the conjunctiva, the mucosa of the respiratory tract and skin. Repeated contact most often wet mixture with unprotected skin can cause irritation of the skin (irritant contact dermatitis); for some people it may lead to the development of allergic contact dermatitis. Dermatitis is manifested by itching skin inflammation. At first sight, the skin is red, flaky. Eye contact has mixture irritating effects, massive intervention or insufficient treatment (requiring immediate eyewash for a few minutes) can cause a chemical burn to the eye inflammation

Eyes: Eye contact with cement (dry and wet) may cause serious and potentially irreversible injury.

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Skin: After prolonged contact the cement may cause an irritant effect on moist skin (due to sweating or wet) or the repeated contacts cause contact dermatitis. Prolonged skin contact with wet cement or concrete may cause serious burns because it develops the initial absence of pain (eg. Kneeling in wet concrete through clothing).

Inhalation: Long-term repeated inhalation of cement for general use increases the risk of developing lung diseases.

Interactive effects

n.d.

Absence of specific data

n.d.

Mixture versus substance information

They were compared and used information from safety data sheets components products.

Mixtures

Information on mixtures compared to information on substances

11.2 Information on other hazards

Endocrine disrupting properties

The substance is neither on the list of endocrine disruptors, nor does it contain an ingredient that would be on the list of endocrine disruptors. (according to the list from 22.4.2021).

Consistency of information with the registration application or chemical safety report:

This is a mixture. The individual ingredients have been registered under REACH and the information from the registration documents has been used for the preparation.

Other information

n.d.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity**Aluminum cement**

Acute (short-term) fish toxicity

LC₅₀, 96 h., fish (mg.l⁻¹): >100 mg/l

Danio rerio

Acute (short-term) invertebrates toxicity

EC₅₀, 24 h., invertebrates (mg.l⁻¹): 6,4 mg/l

Daphnia magna

12.2 Persistence and degradability

n.a. It is an inorganic material that does not present a risk of toxicity. Substance is not considered as quickly degrading.

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and Regulation (EC) 1272/2008 (CLP)

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12.3 Bioaccumulative potential

n.a. It is an inorganic material that does not present a risk of toxicity.

12.4 Mobility in soil

n.a. It is an inorganic material that does not present a risk of toxicity.

12.5 Results of PBT and vPvB assessment

n.a. It is an inorganic material that does not present a risk of toxicity. Individual components are not assessed as PBT, vPvB.

12.6. Endocrine disrupting properties

The substance is neither on the list of endocrine disruptors, nor does it contain an ingredient that would be on the list of endocrine disruptors. (according to the list from 22.4.2021).

12.7 Other adverse effects

Mixing the product with water will increase the pH, then product is alkaline and can temporarily pose a danger to aquatic organisms. The pH depends on the ratio of components in the product and also on the concentration of the product in water. The pH gradually decreases due to the dilution and the conversion of calcium hydroxide to carbonate. After hardening the product with water or moisture, even for a short product does not present a risk to aquatic organisms

Prevent leaking into soil, surface and underground water and sewage systems. The mixture is dangerous for water flows. Ecotoxicity effects may occur only in case that inadvertent spillage of very large amounts of product is combined with water as a result of increased pH. After curing, it is not known negative effects on the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendations for Product:

The mixture must be disposed of as hazardous waste in accordance with applicable legislation. Catalog No.: 10 13 11

Recommendations for packaging:

After emptying the container packaging can be recycled and should be treated as waste. Catalog No.: 15 01 01

Residues shall not be discharged into drains, watercourses or near water sources.

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Dry cement mixtures**SECTION 14: Transport information**

Cements for general use are not covered by international regulation on transporting dangerous goods (IMDG, IATA, ADR / RID); no classification is required.

	Land transport ADR / RID	Sea transport IMDG	Air transport ICAO-TI a IATA-DGR	Inland waterway transport (ADN)
14.1 UN number or ID number	Not Regulated	Not Regulated	Not Regulated	Not Regulated
14.2 UN proper shipping name	n.d.	n.d.	n.d.	n.d.
14.3 Transport hazard class(es)	n.d.	n.d.	n.d.	n.d.
Hazard Label(s)	n.d.	n.d.	n.d.	n.d.
14.4 Packing group	n.d.	n.d.	n.d.	n.d.
14.5 Environmental hazards	None .	None	None	None
14.6 Special precautions for user	n.a.	n.a.	n.a.	n.a.
14.7 Maritime transport in bulk according to IMO instruments	n.a.	n.a.	n.a.	n.a.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulations**

Safety data sheet is according to European legislation

Regulation EC 1907/2006

Regulation EC 1272/2008

[COMMISSION REGULATION \(EU\) 2020/878](#)

Authorisations and/or restrictions on use: not applicable

Authorisations: Restrictions on use: not applicable

Other regulations

n.d.

National regulations

n.d.

15.2 Chemical safety assessment

Chemical safety assessment was not carried out for whole mixture. Chemical safety assessment is in Safety data sheets of components.

According to Regulation (EC) 1907/2006 (REACH)
and Regulation (EC) 1272/2008 (CLP)

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SECTION 16: Other information

16.1 Indication of changes

- Safety Data Sheet of 20.4.2017 (version 1 EN), was revised in accordance with Commission Regulation (EU) 2020/878 revision due to a change in classification
- Specification of certain data in accordance with Commission Regulation (EU) 2020/878, information on Endocrine Disruptors, recast of Section 9, clarification in Sections 1, 2, 3, 8, 11, 12, 14
- changes are shown in blue color
- the safety data sheet dated 20.4.2017 replaces the revision dated 18.8.2021

16.2 Abbreviations and acronyms

(not in alphabetical order)

- DNEL (Derived No-Effect Level)
- LC₅₀ – (Lethal concentration)
- LD₅₀ – (Lethal dose)
- **n.a. – not applicable**
- **n.d. – no data**
- PBT – persistent, bioaccumulative toxic
- PNEC (Predicted No-Effect Concentration)
- vPvB – very persistent, very bioaccumulative
- ADR : European agreement concerning the international carriage of dangerous goods by Road.
- IMDG : International Maritime Dangerous Goods.
- IATA : International Air Transport Association.
- ICAO : International Civil Aviation Organisation
- RID : Regulations concerning the International carriage of Dangerous goods by rail.
- CAS — Chemical Abstract Service
- CERCLA — Comprehensive Emergency Response and Comprehensive Liability Act
- GHS – Globally Harmonized System Globally Harmonized System
- OSHA — Occupational Safety and Health Administration
- PEL — Permissible Exposure Limit
- TSCA — Toxic Substances Control Act
- TWA — Time -Weighted Average
- UN — United Nations
- SARA — Superfund Amendments and Reauthorization Act

Any others not on this list are explained at the point of occurrence

16.3 Key literature references and sources for data

- Regulation EC 1907/2006
- Regulation EC 1272/2008
- [COMMISSION REGULATION \(EU\) 2020/878](#)
- Safety data sheet in Czech language
- Safety data sheets of components
- www.echa.eu

16.4 Classification for mixtures and used evaluation method according to regulation (EC) 1207/2008 [CLP]

Eye Dam.1, H318, STOT SE 3 H 335, Skin Irrit. 2 H315, Skin Sens.1B H 317

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16.5 Relevant R-, H- and EUH-phrases (number and full text)

Hazard statements

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

Precautionary statements

P102 Keep out of reach of children.
P202 Do not handle until all safety precautions have been read and understood..
P260 Do not breathe dust.
P280 Wear protective gloves/protective clothing/eye protection/face protection
P302+P352 IF ON SKIN: Wash with plenty of water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
P271 Use only outdoors or in a well-ventilated area.
P391 Collect spillage.

16.6 Training advice

Workers who come into contact with hazardous substances / mixtures must be acquainted with effects of these substances / mixtures, ways to treat them with protective measures, the principles of first aid, with the necessary sanitation procedures and the procedures for liquidation of failures and accidents.

A person dealing with the chemical product must be familiar with the information given in the SDS. Persons carrying dangerous substances / mixtures must be aware of the guidelines for emergency response in accordance with the ADR / RID.

16.7 Further information

Safety Data Sheet has been prepared in accordance with the Regulation EC 1907/2006 Regulation EC 1272/2008, as amended. Safety Data Sheet contains data necessary for ensuring safety and health at work and environmental protection. These data correspond to the current state of knowledge and experience. The information reflects the current state of our knowledge; describe the product with regard to safety but cannot be considered as guaranteed values. The recipient must have own responsibility for adhering to existing laws and regulations.