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

1.1 *Product identifier:*

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

Cement adhesive for bonding tiles and floor tiles.

Adhesive and levelling compound for thermal insulation systems.

- 1.3 Details of the supplier of the safety data sheet:
- 1.3.1 *Company identifier:*

1 2 3	
Company name:	Bralep s.r.o.
Address:	Bohnická 16/38, 181 00 Praha 8
Commercial premises:	Ledčice 233, 277 08 Czech Republic
ID:	48026913
Tel.:	+420 315 630 911
Fax:	+420 315 695 272

1.3.2 *E-mail address of the competent person responsible for the safety data sheet:*

info@bralep.cz

1.4 Emergency telephone number:

Toxikologické informační středisko (Toxicological Information Centre), Na bojišti 1, 128 08 Praha 2 Tel.: +420 224 919 293, +420 224 915 402, +420 224 914 575 (NON -STOP)

SECTION 2: HAZARDS IDENTIFICATION

- 2.1 Classification of the mixture Xi, R36/37/38, R41, R43 The full text of the R-phrases is given in Section 16 of this safety data sheet.
- 2.1.1 The most serious adverse physical and chemical effects Not applicable.
- 2.1.2 The most serious adverse effects on human health

In the form of dust and when mixed with water, it irritates eyes, respiratory system and skin. May cause serious eye damage. After mixing with water or exposure to atmospheric moisture, a strong alkaline solution is formed.

In view of this, the wet mixture can irritate skin and eyes. Due to the possible trace amount of Cr (VI), it may also cause an allergic reaction in some people. Cr (VI) content < 2 ppm.

2.1.3 The most serious adverse effects on environment Avoid product from entering waste water without prior treatment.

2.2 Label elements Classification according to Directive No. 1999/45/EC



It contains: Portland cement (CAS 65997-15-1); calcium hydroxide (CAS 1305-62-0).

R36/37/38 Irritating to eyes, respiratory system and skin.

R41 Causes serious eye damage.

R43May cause sensitisation by skin contact.

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S2 Keep out of the reach of children.

S22 Do not breathe dust.

S25 Avoid contact with eyes.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical attention. S36/37/39 Wear suitable protective clothing, gloves and goggles or a face shield.

S46 If swallowed, seek medical advice immediately and show this container or label.

2.3 Other hazards

The mixture does not meet the criteria for persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) substances in accordance with Annex XIII of EU Regulation No. 1907/2006.

2.4 Additional information Cr (VI) content < 2 ppm.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

- 3.1. Substances
 - It is a mixture.
- 3.2. Mixtures
- 3.2.1. Product characteristics

Powder mixture of cements, sands, inorganic fillers and selected additives.

Hazardous substances	CAS EINECS	Registratio n no.	Content (%w.)	Classification according to Directive No. 67/548/EEC	Classification according to CLP (EC Regulation No. 1272/2008)
Portland cement 1)	65997-15-1 266-043-4	Not assigned (see Section 15.1)	20-40	Xi, R36/37/38, R43	Eye Dam. 1, Skin Sens. 1B, Skin Irrit. 2, STOT SE 3. H315, H317, H318, H335
Calcium hydroxide 1)	1305-62-0 215-137-3	01- 2119475151 -45-0039	< 1	Xi, R37/38, R41	Eye Dam. 1, Skin Irrit. 2, STOT SE 3. H315, H318, H335

1) It is not a mandatory classified substance. Classification according to (EC) no. 1272/2008 from the supplier of the mixture components.

The full text of the classification, the H- and R-phrases is given in Section 16 of this safety data sheet.

SECTION 4: FIRST AID MEASURES

- 4.1 Description of first aid measures
- 4.1.1 General instructions

In case of nausea or other health problems or in case of doubt seek medical attention; provide information from this safety data sheet.

4.1.2 In case of inhalation

Interrupt the exposure, move the casualty from the contaminated environment to air, ensure physical and mental peace. Do not allow the affected person to cool down. Seek medical attention if breathing problems occur.



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4.1.3 In case of skin contact

Remove contaminated clothing from the casualty, wash the affected area with plenty of water and soap and rinse thoroughly. In case of signs of severe irritation (redness of the skin) or if there are signs of skin damage, seek medical attention.

4.1.4 In case of eye contact

Remove contact lenses if the casualty uses them. Immediately rinse with clean (if possible, lukewarm) running water for at least 30 minutes with the eyelids wide open, especially the area under the eyelids; consult a doctor, especially if the pain or redness persist.

4.1.5 In case of ingestion

Calm down the casualty and place in a warm place. Rinse mouth with water, but only if the casualty is conscious and does not have convulsions. Drink half a litre of lukewarm water. Do not induce vomiting. If larger amount is swallowed, seek medical attention immediately and show the product label or this safety data sheet.

- 4.2 *Most important symptoms and effects, both acute and delayed* No data available.
- 4.3 Indication of any immediate medical attention and special treatment needed In normal use, no immediate medical attention and special treatment needed. Required only if symptoms of a certain degree occur, see Sections 4.1.2 to 4.1.5.

SECTION 5: FIRE-FIGHTING MEASURES

- 5.1 <u>Extinguishing media</u> The product is not flammable.
- 5.2 Special hazards arising from the substance or mixture The product is not flammable/combustible or explosive, and does not allow or support the combustion of other materials.
- 5.3 Advice for fire-fightersThe product does not present any fire hazard. Fire fighters need no special protective equipment.

SECTION 6: ACCIDENTAL RELEASE MEASURES

- 6.1 *Personal precautions, protective equipment and emergency procedures* Avoid contact with skin and eyes.
- 6.2 *Environmental precautions* Avoid product from entering sewage systems/surface water/groundwater and soil.
- 6.3 Methods and material for containment and cleaning upMechanical dry absorption, the water-cured product can be disposed of as construction waste.
- 6.4 *Reference to other sections* See also Sections 7, 8 and 13.

SECTION 7: HANDLING AND STORAGE

- 7.1 *Precautions for safe handling* Handle only closed containers, ensure good ventilation of the workstations, avoid dust formation.
- 7.1.1 Environmental precautions Not required in normal use. In case of an accident, see Section 6.
- 7.1.2 Specific requirements or rules related to the substance or mixture None.
- 7.2 Conditions for safe storage, including any incompatibilitiesStore in a closed container in dry area. Tightly close the opened bags and protect from moisture. The storage life is 12 months from the date of filling.





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7.3 Specific end use(s)

Cement adhesive for bonding tiles and floor tiles.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

The mixture contains substances for which the following concentration limits in the working environment (maximum permissible exposure limit = TWA; maximum permissible concentration in the working atmosphere = NPK-P) are determined (Government Decree No. 361/2007 Coll., as amended).

Chemical CAS name	a.c	content	(mg/m3)	
	(%w.)	PEL	NPK-P	
Portland cement	65997-15-1	20-40	6	10
calcium hydroxide	1305-62-0	< 2	2	4

- 8.1.1 *Recommended methods of substance measurement in the working environment* Not determined.
- 8.1.2 Values of biological exposure tests (BET) Not determined.
- 8.1.3 *Recommended procedures for the determination of biological exposure tests* Not determined.
- 8.1.4 Exposure scenarios

Currently not processed.

- 8.2 *Exposure controls*
- 8.2.1 Appropriate engineering controls

The technical measures (intensive ventilation, local or central exhaustion, etc.) must be such that the maximum permissible concentrations of pollutants in the working atmosphere are not exceeded according to hygienic regulations pursuant to Government Regulation No. 178/2001 Coll., laying down the health protection conditions for employees at work. The organization in which the preparation is used is obliged to ensure that the actual values of concentrations of hazardous substances at the workstations are measured in accordance with the applicable legal regulations.

- 8.2.2 Individual protection measures, including personal protective equipment The personal protective equipment used must be in accordance with Government Order No. 495/2001 Coll. (transposition of Directive 89/686/EEC).
- 8.2.2.1 General hygiene and protective measures

Do not eat, drink or smoke while working. Avoid contact with eyes and skin. Wash hands before breaks.

8.2.2.2 Eye and face protection



Tightly fitting safety goggles.

8.2.2.3 Skin protection

Hand protection



Wear suitable gloves (PVC, PE)

Other protection

Protective work clothing; do not eat, drink, smoke while working; remove contaminated or stained clothing, wash clothing before reuse. After work, wash hands with warm water and soap and treat the skin with suitable reparation agents.



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8.2.2.4 Respiratory protection



Where NPK-P cannot be ensured, use dust masks.

8.2.3 Environmental exposure controls

> Not required in normal use; avoid product from entering surface water courses, sewage systems and soil. In case of accidental leakage, proceed according to Section 6.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance: *Physical state (at 20°C)* Colour: Odour: *pH* value (at $20^{\circ}C$): *Freezing point (°C): Boiling point/boiling range (°C): Flash point (°C):* Evaporation rate: Flammability: *Explosion limits - lower limit (%w.):* - upper limit (%w.): *Vapour pressure (at 20°C):* Vapour density:

solid, powder grey without odour after mixing with water 11-13.5 not specified not specified not applicable no data available not known not explosive not explosive not specified no data available

<i>Relative density (at 20°C):</i>	1,300 kg/m3
Solubility in water:	insoluble, limited miscible
Solubility in other solvents:	no data available
Partition coefficient: n-octanol/water:	no data available
Auto-ignition temperature ($^{\circ}C$):	no data available
Decomposition temperature (°C):	no data available
Viscosity - dynamic (at 20°C):	not applicable
Explosive properties:	not explosive
Oxidizing properties:	not specified
Additional information	
Ignition temperature (°C):	no data available
Hazard class:	no data available
Temperature class:	no data available
Calorific value (MJ/kg):	no data available
Maximum explosive pressure (MPa):	no data available
Conductivity:	no data available

SECTION 10: STABILITY AND REACTIVITY

Reactivity

9.2

Under normal conditions, the product is stable, no decomposition occurs. Chemical stability Under normal conditions, the product is stable, no decomposition occurs. Possibility of hazardous reactions Forms a strong alkaline solution with water.

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Conditions to avoid Avoid contact with water and air humidity, observe storage conditions Incompatible materials Not applicable. Hazardous decomposition products Not known. Other information Not known.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

11.1.1 Acute toxicity

11.1.1.1 Mixtures

No relevant toxicological data are available for the mixture.

11.1.1.2 Mixture ingredients

No relevant toxicological data are available for the Portland cement.

For calcium hydroxide:

Acute toxicity: not determined (no data available)

- LD 50, oral, rats (mg/kg): 7,340 mg/kg
- LD50, dermal, rats or rabbits (mg/kg): not determined.
- LD50, inhalation, rats, for aerosols or particles (mg/m3): not determined.
- LD50, inhalation, rats, for gases and vapours (mg/m3): not determined.
- 11.1.2 Irritation
 - o skin

The mixture may have an irritant effect in susceptible persons.

Ingredients:

Portland cement: The contact of cement with wet skin may cause swelling, cracking of the skin. Prolonged contact with simultaneous friction may cause severe burns.

Calcium hydroxide: has an irritant effect on the skin.

o eyes

The dust mixture irritates the conjunctival mucosa of the eyes.

Ingredients:

Portland cement -Portland clinker caused a diverse picture of the effects on the cornea and the calculated irritation index was about 128. The general purpose cements contain varying amounts of Portland clinker, fly ash, blast furnace slag and gypsum, natural pozzolan and calcined slate, silica dust and limestone. Direct contact with cement can cause corneal damage by mechanical stress, immediate or delayed irritation or inflammation. Direct contact with larger amount of dry cement dust or wet cement splashes can cause effects ranging from slight eye irritation (e.g. conjunctivitis or eyelid inflammation) to chemical burns and blindness.

Calcium hydroxide - risk of serious damage to eyes in case of contact

11.1.3 Sensitisation

Ingredients:

Portland cement: Some individuals may suffer from eczema after exposure to wet cement dust caused either by high pH, which causes contact dermatitis from irritation after prolonged contact, or by an immunological reaction to soluble Cr (VI), which causes contact allergic dermatitis. The reaction can occur in various forms, from mild rash to severe dermatitis and is a combination of both of the above-mentioned mechanisms. If the cement contains a reducing agent to reduce the soluble Cr (VI) content and if the limit for soluble Cr (VI) is not exceeded at the storage life, a sensitizing effect is not expected.

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11.1.4 Narcotic effects

Not identified.

11.1.5 Carcinogenicity

Not determined for the mixture.

Ingredients:

Portland cement: No causal relationship between Portland cement exposure and cancer has been confirmed. Epidemiological literature does not support the designation of Portland cement as a possible human carcinogen. Portland cement is not classified as a human carcinogen (according to ACGIH A4: Reagents which raise concerns that they may be carcinogenic to humans but which cannot be definitively assessed due to lack of data. In vitro or animal studies do not provide indications of carcinogenicity that are sufficient to classify the agent by any of the other designations). Portland cement contains up to 5% dust and, based on available data, the classification criteria are not met.

11.1.6 Mutagenicity

Not determined for the mixture.

- 11.1.7 Reproductive toxicity Not specified
- 11.2 Experience from effects on humans Possible ways of exposure: especially after inhalation and skin contact.
 - Additional data
- 11.3 The mixture is evaluated by conventional calculation methods according to Decree No. 402/2011 Coll., as amended.

ECOLOGICAL INFORMATION SECTION 12:

- 12.1 *Toxicity*
- 12.1.1 Acute toxicity of the mixture to aquatic organisms

No relevant toxicological data for aquatic organisms are available for the mixture.

- 12.1.2 Acute toxicity of the mixture ingredients to aquatic organisms
- 12.2 Chronic toxicity of the mixture to aquatic organisms Not specified for the mixture or ingredients.
- 12.3 *Persistence and degradability* Not specified for the mixture or ingredients.
- 12.4 *Bioaccumulative potential* Not specified for the mixture or ingredients.
- 12.5 Mobility in soil Not specified for the mixture or ingredients.
- 12.6 Results of PBT and vPvB assessment Not available.
- 12.7 Other adverse effects None.

DISPOSAL CONSIDERATIONS SECTION 13:

- 13.1 *Waste treatment methods* Waste must be disposed of in accordance with Act No. 185/2001 Coll., on waste, as amended. Do not mix with municipal waste. Avoid release to sewage systems and surface waters.
- 13.1.1 Possible risk when removing There is no significant risk during waste disposal.

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13.1.2 Method of removing the mixture

13.1.2.1 Unused mixture residues

Disposed of by using normal procedures (incinerators, landfills).

13.1.2.2 Cured residues

According to Waste Catalogue, catalogue no. 17 09 04 and category O.

13.1.2.3 Empty packaging

Take to separate waste collection points for recycling. 15 01 01 and category O.

SECTION 14: TRANSPORT INFORMATION

The product is not covered by the international regulation on the transport of dangerous goods (IMDG, IATA, ADR / RID); no classification is required. No special precautions other than those listed in Section 8 are needed.

- 14.1 UN number Not relevant.
- 14.2 UN proper shipping name:
 - Not relevant.
- 14.3 Transport hazard class(es): Not relevant.
- *14.4 Packing group:* Not relevant.
- 14.5 Environmental hazards: Not relevant.
- 14.6 Special precautions for the user Not relevant.
- 14.7 *Transport in bulk according to Annex II of Marpol and the IBC Code* Not relevant.

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture According to Act No. 350/2011 Coll., this product is classified as irritant –xi. The product is a mixture and is not subject to registration under REACH (EC) 1907/2006.

Safety, health and environmental regulations

COMMISSION REGULATION (EU) No. 453/2010 of 20 May 2010, amending the Regulation of the European Parliament and of the Council (EC) No. 1907/2006 on registration, evaluation, authorization and restriction of chemicals (REACH)

Regulation of the European Parliament and of the Council (EC) No. 1907/2006 of 18 December 2006 on the registration, evaluation, authorization and restriction of chemicals, establishing a European Chemicals Agency, amending Directive No. 999/45/EC and repealing Regulation of the Council (EEC) No. 793/93, Regulation of the Commission (EC) No. 1488/96, Directive of the Council No. 76/769/EEC and Directives of the Commission No. 91/155/EEC, 93/67/EEC 93/105/EC and 2000/21/EC.

Directive of the European Parliament and of the Council No. 1999/45/EC on the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations, as later amended.

Directive of the Council No. 76/796/EEC on the approximation of the laws. Regulations and administrative provisions of the Member States relating to restrictions on the marketing and use of certain dangerous substances and preparations, as later amended.

Act No. 350/2011 Coll. on chemical substances and mixtures, including implementing regulations (Chemical Act) and its implementing regulations.

Act No. 59/2006 Coll., on prevention of major accidents.

And also for example: Act No. 455/1991 Coll., Trade Licensing Act, as later amended, Act no. 102/2001 Coll., on general product safety, as later amended.

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Act No. 22/1997 Coll., on technical requirements for products, as later amended, and its implementing regulations, e.g. Government Regulation No. 21/2003 Coll.

Act No. 258/2000 Coll., on public health protection and on amendments to certain related regulations, as later amended, and its implementing regulations.

Act No. 20/1966 Coll., on public health, as later amended.

Act No. 262/2006 Coll., the Labour Code, as amended.

Act No. 309/2006 Coll., as amended, on further requirements with regard to occupational safety and health.

Decree No. 432/2003 Coll., stipulating conditions for the classification of work to categories, limit values of indicators of the biological exposure tests.

Government Regulation No. 101/2005 Coll., on more detailed requirements for the workplace and working environment. Government Regulation No. 361/2007 Coll., determining condition of occupational health protection.

Act No. 185/2001 Coll., on waste, as later amended, and it implementing regulations.

Act No. 86/2002 Coll., on the protection of air, as later amended, and its implementing regulations.

Act No. 477/2001 Coll., on packaging, as later amended and it implementing regulations.

Act No. 111/1994 Coll., on road transport, as later amended.

Act No.133/1985 Coll., on fire protection, as amended, and Decree of the Ministry of Interior No. 246/2001 Coll. European Agreement concerning the international carriage of dangerous goods by road (hereinafter referred to as the ADR Agreement).

NOTE: The regulatory information provided only indicates the basic regulation described in this safety data sheet. We note the possible existence of additional provisions to supplement these regulations. We refer to all applicable national, international and local regulations.

15.2 *Chemical safety assessment*

No chemical safety assessment was performed for the product.

SECTION 16: ADDITIONAL INFORMATION

16.1 The full text of the classification, the H- and R-phrases is given in Sections 2 and 3 of the safety data sheet.

H318 Causes serious eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

P102 Keep out of the reach of children.

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

P305+P351+P338+310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Immediately call the TOXICOLOGICAL

INFORMATION CENTRE or a doctor. P302+P352+P333+P313 IF ON SKIN: Rinse with plenty of water and soap. In case of skin irritation or

rash: Seek medical attention.

P261+P304+P340+P312 Avoid breathing dust. IF INHALED: Remove person to fresh air and keep comfortable for breathing. If you fell unwell, immediately call the TOXICOLOGICAL INFORMATION CENTRE or a doctor.

P501: Dispose of contents/packaging in accordance with regulations on waste and packaging.

R36/37/38 Irritating to eyes, respiratory system and skin.

R43May cause sensitisation by skin contact.

R41 Causes serious eye damage.

S2 Keep out of the reach of children.

S22 Do not breathe dust.

S25 Avoid contact with eyes.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical attention.

S36/37/39 Wear suitable protective clothing, gloves and goggles or a face shield.

S46 If swallowed, seek medical advice immediately and show this container or label.



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- 16.2 Training instructions
- Not specified.
- 16.3 Changes to this safety data sheet revision changes

Overall modification of the safety data sheet. Update according to Regulation (EC) No. 453/2010.

16.4 Sources of data used in compiling the safety data sheet

Manufacturer and supplier data given in the safety data sheets of the individual components of the mixture.

The information given is based on our current level of knowledge and is intended to describe the product in terms of safety requirements. The data given should not be construed as guaranteeing the specific properties of the product.