

SAFETY DATA SHEET

According to 2015/830/EC

CEKOL ZU-1

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

1.1. Product identifier

Product name: **CEKOL ZU-1**

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

CEKOL ZU-1 Sealing mortar suitable for making water-resistant insulation under ceramic lining

1.3. Details of the supplier of the safety data sheet

CEDAT Sp. z o. o.
ul. Budowlanych 19
80-298 GDAŃSK
Tel./ fax +48 (58) 768 21 00
48 (58) 768 21 40

1.4. Emergency telephone number

Tel/ fax +48 (58) 768 21 13, Poland

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Skin Irrit. 2

H315 Causes skin irritation.

Skin Sens. 1

H317 May cause an allergic skin reaction.

Eye Dam. 1

H318 Causes serious eye damage

STOT SE 3

H335 May cause respiratory irritation

2.2. Label elements

Labeling according to Regulation (EC) No 1272/2008

Pictograms:



Signal word:

DANGER

Additional information:

Contain: Cement

Hazard statements

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

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H335 May cause respiratory irritation.

Precautionary statements

General

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

Prevention

P261 Avoid breathing dust

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

Response

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.

Storage

none

Disposal

none

2.3. Other hazards

PBT: Not applicable. vPvB: Not applicable.

The product is offered in the form of finely ground dust, which might mechanically irritate the eyes and the respiratory tract. After contact of cement mortar with water (e.g. during the preparation of the mortar, when the cement is wet), strongly alkaline environment might be formed. Due to high alkalinity, wet cement mortar may irritate skin and eyes. It might also damage products made of aluminium or other base metals.

In some cases allergic reactions are possible, due to high content of soluble chromium Cr(VI). Soluble chromium (VI) content in cement is less than 2 mg/kg (0.0002%) of total dry matter.

SECTION 3: Composition/information on ingredients

3.2 Mixture

CEKOL ZU-1 is a mixture of cement, calcium carbonate, minerals - quartz sand and modifiers.

Name of substance	Identifier	Classification 1272/2008		% weight
Cement, portland, chemicals	Index ---	Eye Dam. 1	H318	50 ÷ 75
	CAS 65997-15-1	Skin Irrit. 2	H315	
	WE: 266-043-4	STOT SE 3	H335	
	Reg. No: ---	Skin Sens 1	H317	
Quartz (sand)	Index ---	---	---	25 ÷ 40
	CAS 14808-60-7			
	WE: 238-878-4			
	Reg. No: ---			
Calcium carbonate, limestone	Index ---	---	---	5 ÷ 10
	CAS 1317-65-3			
	WE: 215-279-6			
	Reg. No: ---			
Vinyl alcohol copolymer	---	---	---	2 ÷ 8

The full meaning of the risk phrases H included in the chapter 16

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SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

Special individual equipment for emergency responders is not required. Avoid exposure to wet cement mortar. In case of any worrying symptoms, seek medical advice.

Inhalation dust:

In case of exposure of respiratory tract, stop working, move the affected person from the working area and ensure that they breathe fresh air. Seek medical advice in case of irritation or symptoms of discomfort such as coughing or similar.

Ingestion:

Do not give anything to drink to an unconscious or befuddled person; if the person is conscious, rinse their mouth and provide them with water to drink. Do not induce vomiting due to the risk of aspiration and the contents of the stomach might enter the lungs. In case of any worrying symptoms, seek medical advice.

Eye contact with dust:

Do not rub eyes, remove contact lenses; immediately rinse eyes with plenty of water for approximately 15 minutes (holding eyelids open); avoid strong water jet as it might damage cornea. In case of contamination of one eye. protect the other eye from contamination during rinsing. If irritation symptoms persist, seek medical advice.

Skin contact with dust:

Remove contaminated clothing, rinse skin with water and soap, then dry. If symptoms of irritation persist, seek medical advice.

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

As there is no research on the mixture, the main acute and delayed symptoms and consequences of exposure to individual hazardous substances based on their data sheets have been listed below:

CEMENT:

Eyes – Contact of dry or wet cement with eyes might result in a serious and potentially irreversible injury.

Skin – Prolonged contact of cement with wet or sweaty skin might cause irritation.

Prolonged contact of cement dust with wet skin might result in skin irritation, inflammation or burns. Contact does not necessarily need to cause immediate pain sensation (e.g. during kneeling in wet concrete in trousers).

Inhaling – Prolonged inhaling of cement dust increases the risk of developing respiratory tract diseases.

Environment – In the course of normal use common cement does not pose a hazard to the natural environment.

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

Medical help should be based on the physician's appraisal and the patient's reactions. The product's packaging or data sheet should be submitted to the doctor. OHS rules should be observed.

Please follow the instructions given in section 4.1.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Use fire extinguishing measures appropriate for the given surroundings

The ingredients of the mortar are not flammable and do not sustain flames

5.2. Special hazards arising from the substance or mixture

Threats resulting from the properties of the product, the products of combustion, the resultant gases - Not known

5.3. Advice for firefighters

Personal protection equipment for fire-fighters - Use equipment appropriate for the given type of fire. No special firefighting equipment is necessary on account of the product.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Do not inhale the dust
Avoid eye exposure
In case of contamination rinse eyes with plenty of water
Avoid skin exposure
Personal protective equipment according to item 8.2.2

6.2. Environmental precautions

Avoid dust formation. Avoid penetration of large amounts of the mixture to the sewage system, surface and groundwater.

6.3. Methods and material for containment and cleaning up

Damaged packaging should be secured and placed inside another tight container. We recommend collecting the product mechanically. Do not clean up with a dry brush. Do not create dust. In order to avoid dust formation you can use industrial vacuum cleaners (industrial equipment with effective EPA/HEPA or similar filters). Alternatively, the mortar may be wiped using a wet mop wet brush. Moist mortar is subject to bonding. When the mortar has cured, you can treat it as debris and remove using available measures.

6.4. Reference to other sections

Section 8.2 in order to obtain information on personal protective equipment
The collected material can be removed according to the applicable provisions and processed according to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Observe OHS rules
Use in well (mechanically or gravitationally) ventilated rooms;
Keep away from children;
Use personal protective equipment;
Avoid dust formation;
Avoid eating and drinking during use;
Avoid inhaling the dust;
Personal protective equipment according to item 8.2.2,

7.2. Conditions for safe storage, including any incompatibilities

Stored the mixture in tight packaging;
Protect against atmospheric agents;
It is recommended to store the substance in its original packaging;
The bags should be stored in an arrangement which ensures their stability;
Do not use aluminium containers;
Indications for storage: Avoid moisture, it causes clumping of the product, which is then no longer fit for its purpose

7.3. Specific end use(s)

No applications other than those identified in Section 1

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ingredients with limit values that require monitoring at the workplace:

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Substance	CAS Number	Long-term exposure Limit (8-hr TWA reference period)		Short-term exposure limit (15 minute reference period)	
		ppm	mg.m ⁻³	ppm	mg.m ⁻³
Portland cement inhalable dust respirable dust	65997-15-1	-	10	-	-
		-	4	-	-
Calcium carbonate inhalable dust respirable	1317-65-3	-	10	-	-
		-	4	-	-

Portland cement:

DNEL - inhaling (8h): 2,0 mg/m³

DNEL skin exposure: not applicable

DNEL consumption: not applicable

DNEL refers to respirable dust.

The tool used for risk assessment (MEASE) referred to the inhalable fraction. Hence, an appropriate safety margin has been applied in the final conclusion and risk assessment analysis. Based on available research and experience DNEL for skin exposure is not available. Cement is classified as a substance which may cause skin or eye irritation, hence exposure to it should be reduced to the minimum.

PNEC water/ PNEC residue/ PNEC soil: not applicable.

Risk analysis for the environment is based on impact on water pH. Changes in pH are possible for surface and ground waters, however, it should not exceed 9.

Calcium carbonate

DNEL

Route of exposure	Effects of exposure	Workers	DNEL Consumers
Through the digestive tract	acute, local	not required	No threat identified
	acute, systemic	not required	6.1 mg / kg body weight
	chronic, local	not required	No threat identified
	chronic, systemic	not required	6.1 mg / kg body weight
Through inhalation	acute, local	No threat identified	No threat identified
	acute, systemic	No threat identified	No threat identified
	chronic, local	No threat identified	No threat identified
	chronic, systemic	10 mg/dm ³	10 mg/dm ³

Aim: environmental protection

PNEC

Remarks

Water environment and air

No data

No data

Freshwater and marine sediments

No data

No data

Soil

No data

No data

Micro-organisms involved in wastewater treatment

100mg/dm³ / NOEC; AF=10

No data

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8.2. Exposure controls

Do not eat, drink or smoke during work so as to avoid exposure to skin or mouth. Use protective cream regularly before starting work. Avoid kneeling in fresh mortar during work. If you cannot avoid kneeling, use water-resistant personal protective equipment. After work with cement mortar all employees should wash their bodies using soap.

Remove contaminated clothing, footwear, watches and clean them before wearing again.

Respiratory tract protection – if dust forming during works exceeds the permissible concentration, appropriate respiratory protection equipment should be used (such as disposable dust masks). Such equipment should be adapted to the level of dust concentration and the European and domestic standards.

Eye protection – protective goggles or EN 166 goggles

Hand protection – use protective gloves, impermeable and resistant to alkaline environment, use protective creams. Conducted analyses indicate that nitrile-coated protective gloves (approx. 0.15mm thick layer) with CE marking, with cotton lining ensuring protection for a period longer than 480 minutes, ensure a sufficient level of protection. Wet gloves should be replaced immediately.

Skin protection – use protective workwear fully covering the skin: long trouser and long sleeves, protective footwear, use protective creams.

Environmental exposure control

Application of the product in line with its intended purpose does not pose a threat to the natural environment. Avoid penetration of large amounts of the mixture to the sewage system, surface and groundwater. Avoid dust formation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:	Powder
Odour:	Odorless
Odour threshold:	Not available
Colour:	Grey
pH:	11 - 13.5 (in water at 20°C, water-material ratio 1: 2)
Melting / Freezing Point:	Not data available
Initial boiling point and boiling range:	Not data available
Flash point:	Not data available
Evaporation rate:	Not applicable
Flammability (solid, gas):	Not applicable
Upper/lower flammability or explosive limits:	Not data available
Vapour pressure:	Not data available
Vapour density:	Not applicable
Relative density:	Not applicable
Bulk density of the mixture:	1100 kg/m ³ ±5%
Solubility(ies):	Mixture of mineral compounds, slightly dissolved in water
Partition coefficient: n-octanol/water:	Not applicable
Auto-ignition temperature:	No data
Decomposition temperature:	Not applicable
Viscosity:	No data Solid.
Explosive properties:	Non explosive
Oxidising properties:	No oxidizing properties

9.2. Other safety information

No data

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SECTION 10: Stability and reactivity

10.1. Reactivity

Dry cement mortar (as well wet) is not reactive if used according to specifications.

10.2. Chemical stability

Dry product is stable in normal storage and application conditions and compliant with most other construction materials. The cement mortar cures into hard mass when mixed with water. Wet mortar is alkaline. Cement reacts with water, forming silicates and calcium hydroxide. Silicates in cement react with strong oxidizing agents like fluorine, boron trifluoride, magnesium trifluoride and oxygen difluoride. It also reacts with aluminium when wet, releasing hydrogen.

10.3. Possibility of hazardous reactions

Not applicable

10.4. Conditions to avoid

Not applicable. The cement mortar cures into hard mass when mixed with water.

10.5. Incompatible materials

Contact with incompatible materials such as acids, ammonium salts, aluminium and other base metals, should be avoided. Uncontrolled penetration of powdered aluminium into wet cement should be avoided - it might result in release of hydrogen. Cement is dissolved in hydrofluoric acid forming silicon tetrafluoride, a caustic gas.

10.6. Hazardous decomposition products

Cement – incompatible materials are not known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

The product has not been subject to toxicological tests. The assessment of the risks it presents to human health has been made according to the rules defined for mixtures.

Acute toxicity

Based on available data, the classification criteria are not met.

Skin corrosion/irritation

Causes skin irritation.

Prolonged contact the skin with wet cement combined with chafing may cause burns.

Serious eye damage/irritation

Causes serious eye damage.

Cement has different effects on the cornea. The calculated irritation index is 128. Direct contact with cement may cause mechanical damage to the cornea, immediate or delayed irritation or inflammation.

Respiratory or skin sensitisation

May cause an allergic skin reaction.

Some people may experience eczema after contact with wet cement dust. This can be due to either high pH, which leads to irritation after prolonged contact, or an immune response to soluble chromium Cr (VI), which can lead to allergic skin irritation. The reaction can take many forms, from a minor rash to serious inflammation, or a combination of both. If the cement contains an active soluble chromium (VI) reducer, and its period of activity has not been exceeded, the above effects should not occur.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

Based on available data, the classification criteria are not met.

STOT-single exposure

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May cause respiratory irritation.

Portland cement dust may be irritating to the throat and respiratory tract. Exposure to above specified limits may result in cough, runny nose, and shallow breathing. Studies show that exposure to cementitious dust can impair respiratory tract functioning.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Acute toxicity

Cement: Not known - it is not harmful to the environment.

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No information available.

12.4. Mobility in soil

Cement - not applicable. After hardening, it does not generate any risk of toxicity.

Calcium carbonate - it is hardly soluble in water and therefore has low mobility in most soils.

12.5. Results of PBT and vPvB assessment

Material does not meet the criteria for PBT or vPvB in accordance with REACH Annex XIII.

12.6. Other adverse effects

Do not allow to enter waters, waste water or soil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product:

In case of release of dry mass, collect it mechanically.

After contact with water and curing the cement product is not classified as hazardous and can be treated as construction waste and road infrastructure waste. **Waste code:** 17 01 01

Disposal of the mixture: dispose in accordance with applicable regulations.

Do not dispose of the mixture into the sewage system.

Keep residues in sealed, steel containers.

Disposal of used packages: packaging waste recycling / disposal must be carried out according to applicable regulations. Only completely emptied packages may be recycled. Classification of this waste type observes the requirements for hazardous waste.

Package:

Only completely empty and clean packaging can be recycled.

Disposal in accordance with applicable regulations:

Packaging - Waste code: 15 01 06 - mixed packaging

SECTION 14: Transport information

14.1. UN number

not applicable

14.2. UN proper shipping name

not applicable

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14.3. Transport hazard class(es)

Label no. :

not applicable

14.4. Packing group

not applicable

14.5. Environmental hazards

No

14.6. Special precautions for user

not applicable

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

not applicable

SECTION 15: Regulatory information

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

- Regulation (EC) No 1272/2008 (CLP) of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (REACH)
- REGULATION (EC) No 1907/2006 OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC
- COMMISSION REGULATION (EU) No 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

15.2. Chemical safety assessment

No data

SECTION 16: Other information

The importance of risk phrases in Section 3:

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

Abbreviations and Acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

PP: Severe Marine Pollutant

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS Chemical Abstracts Service (division of the American Chemical Society)

Note to readers

The information in this SDS is based on our current knowledge and the current legislation.

The product shall not, without first obtaining written Instructions for purposes other than those mentioned in Section 1 purpose be used. It is always the user's responsibility to ensure compliance with statutory Provisions to ensure.

The information in this Safety Data Sheet describing the safety requirements for our product.

Przedsiębiorstwo EKOS s.c.

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