

Pozzolanic Cement (Mineral Added Cement)

CEM IV /B P-LL 32,5 N

SAFETY DATA SHEET

Prepared in accordance with The Regulation on Safety Data Sheet for Hazardous Substances and Mixtures (R.G. 23.06.2017 Sayı: 30105)

Preparation Date: 05.09.2023
Revision Date/ No: - / 00

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1. IDENTIFICATION

1.1 Product Identifier:

Pozzolanic Cement (Mineral Added Cement) / CEM IV /B P-LL 32,5 N

1.2. Use of the Substance/Mixture

Cement is used as a hydraulic binder in the production of concrete, mortar and plaster.

1.3. Company Identification:

Company Name : Afyon Çimento San. Türk A.Ş
Address : Halımoru Köyü Almacık Mevki – Afyonkarahisar
Telephone Number : +90 (0) 272 220 80 00 / 444 8 803
Fax Number : +90 (0) 272 214 72 09
Internet Address : www.cimsa.com.tr
Email : cimsa@cimsa.com.tr

1.4. Emergency Telephone:

ÇİMSA: + 90 (0) 272 220 80 00 / 444 8 803
UZEM – National Poison Control Center: 114

2. HAZARD IDENTIFICATION

Bottom ash cement reacts with water, a strongly alkaline solution is formed. (When making concrete or mortars)

2.1. Maddenin/ Karışımın Sınıflandırılması:

Physical Hazards: Not Classified

Health Hazards:

Skin Irrit. 2: H 315
Skin Sens. 1B: H 317
Eye Dam. 1: H 318 Belirli
STOT SE 3: H 335

Environmental Hazards: Not Classified

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For the full text of the H statements mentioned in this Section, see Section 16.

2.2. Label Elements

Pictogram:



GHS 05

GHS07

Signal Word: Danger

Hazards Statements:

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

Precautionary Statements:

- P 264: Wash contact areas thoroughly after handling.
- P 280: Wear protective gloves/protective clothing/eye protection/face protection.
- P 261: Avoid breathing dust/fume/gas/mist/vapor/spray.
- P 272: Do not take contaminated clothing out of the workplace.
- P 271: Use only outdoors or in a well-ventilated area.

Intervention

- P 302+P352: If on skin: Wash with plenty of water.
- P 321: Special attention required (See Label): See additional first aid instructions.
- P 332+P313: If skin irritation occurs: Get medical advice/consult your doctor.
- P 362+364: Remove contaminated clothing and rewash before use.
- P 333+P313: If skin irritation or rash occurs: Seek medical advice / consult your doctor.
- P 305+P351+P338: In case of contact with eyes: Rinse carefully with water for several minutes. If there are contact lenses and they are easy to remove, remove them. Rinse constantly.
- P 337+P313: If eye irritation persists: Get medical advice/consult your doctor.
- P304+P340: In case of inhalation: Remove the injured person to fresh air and keep her in a position where she/he can breathe comfortably.

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P 312: If you feel unwell, call the NATIONAL POISON CONTROL CENTER on 114 or the doctor/physician.

Storage

P 403+P233: Store in a well-ventilated place. Keep container tightly closed.

P 405: Keep under lock and key.

Disposal

P 501: Dispose of the contents/container in accordance with the Packaging Waste Control Regulation.

2.3. Other Hazards:

Bottom ash Cement contains <50 ppm chromium (+VI).

Skin contact with wet cement, fresh concrete or mortar may cause irritation, dermatitis or burns.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Materials: Not available.

3.2. Mixtures: CEM IV /B P-LL 32,5 N Puzolanik Çimento (Mineral Katkılı Çimento)

Material	CAS No	EC No	Concentration (%)	Classification	Zararlılık İfadesi
Portland Cement (clinker)	65997-15-1	266-043-4	40-70	*Skin Irrit. 2: *Skin Sens. 1B *Eye Dam. 1 *STOT SE 3	H 315 H 317 H 318 H335
Limestone	1317-65-3	215-279-6	15-30	Not Classified.	
Natural Pozzolan	65996-69-2	266-002-0	1-30	Not Classified.	
Gypsum	13397-24-5	603-783-2	3-5	Not Classified.	

Product Document Number: CPC-UTO-23 / 317

4. FIRST AID MEASURES:

4.1. Explanation of First Aid Measures

Description of first aid measures

Personal protective equipment is not required for first aid intervention. First aid workers should avoid contact with wet cement or mixtures containing wet cement.

Inhalation

Remove affected person to fresh air and assist breathing if necessary.

Inhalation of large amounts of cement requires immediate medical attention. Consult a physician immediately.

Eye Contact

Rinse eyes thoroughly immediately with plenty of water. Do not rub the eyes. If you have contact lenses, remove them and wash them with plenty of water. If irritation continues, consult a physician immediately.

Skin Contact

If it is dry cement, remove the cement and wash the affected area with a natural soap and

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clean, cold water for at least 15 minutes. If skin redness and blistering occur, consult a physician immediately.

If it is wet cement, wash it with plenty of water, remove contaminated clothing, shoes, watches, etc. and clean it with plenty of water before use. If skin redness and blistering occur, consult a physician immediately.

Ingestion

Do not induce vomiting. If conscious, have person drink plenty of water. Seek medical attention or contact poison control center immediately

Most Important Symptoms and Effects Both Acute and Delayed

Eye Contact: Eye contact with cement (dry or wet); it can cause serious and potentially irreversible injuries.

Skin Contact: Cement may have an irritating effect on moist skin after prolonged contact (due to sweat or moisture) or may cause dermatitis after repeated contact.

Prolonged skin contact with wet cement or wet concrete can cause severe burns. Reference (1) for more information.

Inhalation: Repeated inhalation of cement dust over an extended period of time increases the risk of lung diseases.

Environment: In normal use, cement is not harmful to the environment.

4.2 Indication of Any Immediate Medical Attention and Special Treatment Needed

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Take this Safety Data Sheet with you when contacting a physician.

5. FIRE FIGHTING MEASURES

Bottom ash cement is not a flammable and explosive mixture.

5.1. Fire fighting equipment

All fire extinguishing methods are suitable.

5.2. Special Hazards Arising From the Substance or Mixture

It does not support the combustion of other materials.

5.3. Advice for Firefighters

All fire fighting methods are suitable. Special protective equipment is not required for fire fighting.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

6.1.1. Except Emergency Personnel

Wear appropriate protective equipment as described in Section 8 and follow the safe handling and usage recommendations given in Section 7.

6.1.2. Emergency Response

Emergency procedures is not required. But respiratory protection is required for high dust conditions.

6.2. Environmental Precautions

Prevent entry to sewers and public waters.

6.3. Methods of Collection and Cleaning up

If possible, keep spilled in a dry place.

For dry cement:

Use dry cleaning methods that do not cause flying dust.

Use industrial portable units equipped with air suction cleaners (high efficiency particulate filter HEPA filter).

Remove dust by wiping, brushing wet or using water sprays or hoses (using fine-grained spray-type devices to prevent dust from entering the air) and remove the slurry.

If it is not possible to apply them, remove them from the floor by slurring with water (see wet cement).

In cases where wet cleaning methods or air suction cleaning is not possible, and where dry cleaning is possible only with brushes, make sure that workers wear appropriate personal protective clothing and prevent the spread of dust.

Place the spilled material in the container. Before disposal solidify as described under section 13.

Wet Cement:

Clean the wet cement and place in a container. Allow the material to dry and solidify before disposal as described under the section 13.

6.4. References to Other Sections

See chapters 8 and 13

7. HANDLING AND STORAGE

Do not keep or handle near foods and beverages or fuming materials.

7.1. Precautions for Safe Handling

Follow the advice given under the section 7.

For prevent dusting:

- For bottom ash Cement (bagged) used in open-ended mixers: firstly add water and then carefully add the cement. Do not pour cement from high. Start to mix slowly. Do not squeeze empty bags unless they are in another clean bag.
- Follow the instructions in section 6.3 to clean dry cement. Bagged cement is heavy and

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poses risks such as sprains and strains to the back, arms, shoulders and legs during lifting and mixing. Handle with care and use appropriate control measures.
Engulfment hazard.

7.2. Conditions for Safe Storage

Store in a dry, cool and well-ventilated place. Keep container closed when not in use.

To prevent burial or suffocation, do not enter a confined space, such as a silo, bin, bulk truck, or other storage container or vessel that stores or contains cement.

Cement can buildup or adhere to the walls of a confined space. The cement can release, collapse or fall unexpectedly.

Packaged products should be stored in unopened bags that are not in contact with the ground, in a dry places and in places protected from excessive air flow to prevent deterioration of quality.

Cement bags should be stacked on a regular basis.

7.3. Specific Uses End

There are no special considerations regarding certain end uses.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control Parameters

To maintain dust levels below exposure limits a local exhaust or general dilution system or other dust suppression methods should be used.

8.2. Exposure Controls

8.2.1. Appropriate Engineering Controls

Use local exhaust or general dilution ventilation or other suppression methods to maintain dust levels below exposure limits. Power equipment should be equipped with proper dust collection devices.

8.2.2. Appropriate Personal Controls

General: Do not eat food, drink something and smoke to contact of skin and mouth of cement clinker.

After working with cement or cement-containing materials, workers should wash or shower or use skin moisturizers immediately. Contaminated clothing, shoes, watches, etc. must be removed immediately and cleaned before reuse.

Respiratory Protection: Wear an approved respirator that is properly fitted and is in good condition when exposed to dust above exposure limits. Wear a TS EN 149 approved respirator that is properly fitted and is in good condition when exposed to dust above exposure limits.



Eye Protection: Wear TS 5560 EN 166 approved glasses or safety goggles when handling dust or wet cement to prevent contact with eyes.



Skin Protection: Wear gloves, boot covers and protective clothing impervious to water to prevent skin contact. Take care not to allow wet cement to enter the boots. When pouring concrete or screed, waterproof trousers or knee pads should be used.

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Thermal Hazard

Not applicable.

8.2.3. Environmental Exposure Controls

Air: The diffusion of cement particles into the air must comply with current technology and the general regulations for the emission of dust particles.

Water: To avoid high pH, do not pour cement into sewer systems or puddle. Negative ecotoxicological effects may occur when pH is higher than 9.

Soil and terrestrial environment: Special emission control measures are not required for terrestrial exposure..

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

(a) **Appearance:** Dry cement is grey with powder form, solid, inorganic material.

(b) **Odor:** None.

(c) **Odor Threshold:** Not available.

(d) **pH:** (T: 20 ° C in water , water – solid ratio 1: 2): 11-13,5

(e) **Melting Point:** > 1250 °C

(f) **Boiling Point and Boiling Range:** Not available.

(g) **Flash Point:** Not available.

(h) **Evaporation rate:** Not available

(i) **Flammability (solid, gas):** Not available

(j) **Upper/Lower Flammable Limit:** Not available

(k) **Vapor Pressure:** Not available.

(l) **Relative Vapor Density:** Not available.

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Kimyasalların Kaydı, Değerlendirilmesi, İzni ve Kısıtlanması Hakkında Yönetmelik (R.G. 23.06.2017 Sayı: 30105) Uyarınca Hazırlanmıştır.

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(m) Relative density: 2,75-3,20; visible density: 0,9-1,5 g/cm³

(n) Solubility (T = 20 °C): Slightly (0.1-1.5 g/l)

(o) Partition Coefficient: N-Octanol/Water Not available

(p) Auto-ignition Temperature: Not available

(q) Decomposition Temperature: Not available

(r) Viscosity: Not available

(s) Explosive properties: Not available

(t) Oxidizing properties: Not available

9.2 Other Informations

There is no required information.

10. STABILITY AND REACTIVITY

10.1. Reactivity

When mixed with water, cements will freeze to a constant mass which is not reactive in normal environments

10.2. Chemical Stability

Stable under recommended handling and storage conditions (see section 7)..

10.3. Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

During storage in the moisture places can cause agglomeration and thus loss of product quality.

10.5. Incompatible Materials

Uncontrolled used of aluminum powder in wet cement should be avoided.

10.6. Hazardous Decomposition Products

None known.

11. TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects

- a) **Acute Toxicity :** Not valid.
- b) **Skin Contact:** In case of contact of dry cement with wet skin or exposure to moist-wet cement; may cause skin cracking, irritation and thickening. Prolonged contact with wear can cause severe burns. Exposure to wet cement powder may cause skin eczema after prolonged contact due to irritation caused by high pH or allergic effect of soluble chromium (VI) salts.
- c) **Eye Contact:** Direct contact with cement can lead to mechanical stress, sudden or delayed irritation or inflammation and corneal damage. Direct contact with large amounts of dry cement or wet cement splash can cause chemical burns and effects ranging from moderate eye irritation (eg conjunctivitis or blepharitis) to blindness.
- d) **Respiratory or Skin Sensitization:** Cement may irritate the throat and respiratory tract. Coughing, sneezing, and shortness of breath may occur after exposure to occupational exposure limits. Exposure to respirable dust exceeding occupational exposure limits; It can cause chronic cough, shortness of breath and chronic obstructive pulmonary disease (COPD). Some individuals, when exposed to wet cement, may induce allergic contact dermatitis, irritant dermatitis, or exhibit eczema caused by high pH with soluble Cr(VI) immunological reaction [Reference (4)]. The

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response on the skin; It occurs in various forms, from a mild rash to severe dermatitis, and these two mechanisms may occur in combination. It is often difficult to determine an exact diagnosis. Cement contains soluble Cr (VI) reducing agent and a sensitizing effect is not expected unless the effectiveness period is exceeded [Reference (3)]. Ingestion of large amounts may cause irritation in the gastrointestinal tract.

- e) **Germ Cell Mutagenicity** : Not valid.
- f) **Carcinogenicity**: Not valid.
- g) **Reproductive System Toxicity**: Not valid.
- h) **STOT Single Exposure**: Inhalation of cement dust; It aggravates existing medical conditions such as respiratory diseases (emphysema/asthma, etc.) or existing skin and/or eye diseases.
- i) **STOT Repeated Exposure**: Not valid.
- j) **Aspiration Harm**: Not valid.

12. Ecological Informations

12.1. Toxicity

The product is not expected to be an environmental hazard (LC50 aquatic toxicity not determined). Mixing large amounts of cement into water can cause an increase in pH and thus can be toxic to aquatic organisms under certain conditions.

12.2. Persistence and Degradability

No additional information available

12.3. Bioaccumulative Potential

No additional information available

12.4. Mobility in Soil

No additional information available

12.5. Results of PBT and vPvB

No additional information available

12.6. Other Adverse Effects

No additional information available

13. DISPOSAL CONSIDERATIONS

13.1. Waste Processing Methods

Cement should not be mixed into sewage and drainage systems, surface and ground water. Used packaging is disposed of in accordance with the Packaging Waste Control Regulation.

Waste must be disposed of in accordance with the Regulation on General Principles of Waste Management.

14. TRANSPORT INFORMATION

This product is not classified as a Hazardous Material under IMDG, OACI/IATA, ADR/RID regulations. No need to take special measure additional to Sectin 8.

14.1. UN Number: Not valid.

14.2. Proper UN Transport Name: Not valid.

14.3. Transport Hazard Classes: Not valid.

14.4. Packaging Group: Not valid.

14.5. Environmental Hazards : Not valid.

14.6. Special Precautions for he user: Not valid.

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14.7. Public Transport According to MARPOL 73/78 Annex II and IBC Code: Not valid.

15.REGULATORY INFORMATION

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

- Regulation on Classification, Labeling and Packaging of Substances and Mixtures
- Regulation on Registration, Evaluation, Authorization and Restriction of Chemicals
- Regulation on the Transport of Dangerous Goods by Road
- Regulation on the Transport of Dangerous Goods by Sea
- Packaging Waste Control Regulation
- Regulation on General Principles of Waste Management
- Personal Protective Equipment Regulation

Marketing and use of cement (restrictions on soluble Cr(VI) content:

The restriction on the marketing and use of cement is subject to the requirements of Article 47 of Annex XVII "Regulation on Registration, Evaluation, Authorization and Restriction of Chemicals".

15.2 Chemical Safety Assessment

No chemical safety assessment has been performed for this mixture.

16.OTHER INFORMATION

Hazard Statements:

H 315 (Skin Corr.)

H 317 (Skin Sens.)

H 318 (Eye Dam.)

H 335 (STOT SE)

EUH 203 – Contains chromium (VI). It may cause allergic reactions.

Precautionary Statements:

Precaution

P 264: Wash contact areas thoroughly after handling.

P 280: Wear protective gloves/protective clothing/eye protection/face protection.

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P 261: Avoid breathing dust/fume/gas/mist/vapor/spray.

P 272: Do not take contaminated clothing out of the workplace.

P 271: Use only outdoors or in a well-ventilated area.

Intervention

P 302+P352: If on skin: Wash with plenty of water.

P 321: Special attention required (See Label): See additional first aid instructions.

P 332+P313: If skin irritation occurs: Get medical advice/consult your doctor.

P 362+364: Remove contaminated clothing and rewash before use.

P 333+P313: If skin irritation or rash occurs: Seek medical advice / consult your doctor.

P 305+P351+P338: In case of contact with eyes: Rinse carefully with water for several minutes. If there are contact lenses and they are easy to remove, remove them. Rinse constantly.

P 337+P313: If eye irritation persists: Get medical advice/consult your doctor.

P304+P340: In case of inhalation: Remove the injured person to fresh air and keep her in a position where she/he can breathe comfortably.

P 312: If you feel unwell, call the NATIONAL POISON CONTROL CENTER on 114 or the doctor/physician.

Storage

P 403+P233: Store in a well-ventilated place. Keep container tightly closed.

P 405: Keep under lock and key.

Disposal

P 501: Dispose of the contents/container in accordance with the Packaging Waste Control Regulation.

Abbreviations:

IMDG : International Maritime Dangerous Cargo Code

IATA : International Air Transport Association

ADR/RID : Agreement on the carriage of dangerous goods by road / Regulations on the international carriage of dangerous goods by rail

LC50 : Lethal concentration at which 50% of test animals died

vPvB : Very persistent, very bioaccumulative

PBT : Persistent, bioaccumulative and toxic

EWC : European Waste Catalog

REACH : It is the policy implemented by the European Union on the Registration, Evaluation and Authorization of Chemicals.

References:

- (1) Portland Cement Dust- Hazard assessment document EH75/7, UK Health and Safety Executive, 2006. Available from:

<http://www.hse.gov.uk/pubns/web/portlandcement.pdf>

- (2) Observations on the effects of skin irritation caused by cement, Kietzman et al, Dermatosen, 47, 5, 184-189 (1999).

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(3) European Commission's Scientific Committee on Toxicology, Ecotoxicology and the Environment (SCTEE) opinion of the risks to health from Cr (VI) in cement (European Commission, 2002).

(4) Epidemiological assessment of the occurrence of allergic dermatitis in workers in the construction industry related to the content of Cr (VI) in cement, NIOH, Page 11, 2003.

The information in this data sheet reflects currently available information and is reliable provided that the product is used under specified conditions and in accordance with the application stated on the packaging and/or technical guidance literature.

Any other use of the product, including use of the product in conjunction with any other product or any other process, is the responsibility of the user.

GBF Hazırlayıcısının Sertifika Numarası: TÜV/01.274.07