



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

- 1.1 Product identifier:** CEMENT DESIGN - ZIRCONIO- [ZR-1K-20] - [ZR-1K-10]
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Relevant uses: Cementitious coating. For professional use only.
Uses advised against: All uses not specified in this section or in section 7.3
- 1.3 Details of the supplier of the safety data sheet:**
CEMENT DESIGN
CAMINO DEL AVENIDA, 2 45290
PANTOJA- TOLEDO - SPAIN
Phone: +34 91 140 7965
info@cement-design.com
www.cement-design.com
- 1.4 Emergency telephone number:** +34 91 140 7965

SECTION 2: HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or mixture:**
CLP Regulation (EC) n° 1272/2008:
Classification of this product has been carried out in accordance with CLP Regulation (EC) n° 1272/2008.
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Sens. 1: Sensitization, skin, Category 1, H317
- 2.2 Label elements:**
CLP Regulation (EC) n° 1272/2008:
Danger

Hazard statements:
Eye Dam. 1: H318 - Causes serious eye damage
Skin Sens. 1: H317 - May cause an allergic skin reaction
Precautionary statements:
P261: Avoid breathing dust/fume/gas/mist/vapors/spray
P272: Contaminated work clothing should not be allowed out of the workplace
P280: Wear protective gloves/protective clothing/eye protection/face protection
P302+P352: ON SKIN: Wash with plenty of water
P305+P351+P338: IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor
P333+P313: skin irritation or rash occurs: Get medical advice/attention
P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively
Substances that contribute to the classification
Cement, Portland, chemicals
- 2.3 Other hazards:**
An explosive mixture of dust and air may occasionally form.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

- 3.1 Substance:**
Non-applicable
- 3.2 Mixture:**

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Chemical description: Solution of additives, aggregates and cements

Components: In accordance with Annex II of Regulation (EC) n°1907/2006 (point 3), the product contains:

Identification	Chemical name/Classification		Concentration
CAS: 14808-60-7 EC: 238-878-4 Index: Non-applicable REACH: Non-applicable	Quartz (1 % < RCS < 10%) Self-classified		2,5 - <10 %
	Regulation 1272/2008	STOT RE 2: H373 - Warning	
CAS: 65997-15-1 EC: 266-043-4 Index: Non-applicable REACH: Non-applicable	Cement, Portland, chemicals Self-classified		2,5 - <10 %
	Regulation 1272/2008	Eye Dam. 1: H318; Skin Irrit. 2: H315; Skin Sens. 1: H317; STOT SE 3: H335 - Danger	

To obtain more information on the risk of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

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

Acute and delayed effects are indicated in sections 2 and 11.

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

Non-applicable

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems (R.D.1942/1993 and subsequent amendments. IT IS NOT RECOMMENDED using tap water as an extinguishing agent.

5.2 Special hazards arising from the substance or mixture:

The product is not flammable, it is not explosive, and does not enable or feed combustion in other materials

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,) in accordance with Directive R.D. 486/1997 and subsequent amendments.

Additional provisions:

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SECTION 5: FIREFIGHTING MEASURES (continued)

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

Sweep up and shovel product or other means and place in container for reuse (preferred) or disposal

6.2 Environmental precautions:

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and material for containment and cleaning up:

It is recommended:

Sweep up and shovel product or other means and place in container for reuse (preferred) or disposal

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A. - Precautions for safe manipulation

Use in ventilated areas. Avoid the buildup of dust

B. - Technical recommendations for the prevention of fires and explosions

Due to its non-flammable nature, the product does not present a fire risk under normal conditions of storage, manipulation and use.

C. - Technical recommendations to prevent ergonomic and toxicological risks

For exposure control see section 8. Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D. - Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

A. - Technical measures for storage

ITC (R.D.379/2001): Not relevant

Classification: Not relevant

T9 minimum: 5°C

T9 maximum: 30°C

Maximum time: 12 month

B. - General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

Keep the container tightly sealed and protected from open air and humidity.

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the work environment (INSHT 2015):

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Identification	Environmental limit values		
Cuarzo (1 % < RCS < 10 %) CAS: 14808-60-7 CE: 238-878-4	VLA-ED		0,05 mg/m³
	VLA-EC		
	Year	2016	
Cemento, portland, chemical products CAS: 65997-15-1 CE: 266-043-4	VLA-ED		4 mg/m³
	VLA-EC		
	Year	2016	

DNEL (Workers):

Non-applicable

DNEL (General population):

Non-applicable

PNEC:

Non-applicable

8.2 Exposure controls:

A. - General security and hygiene measures in the work place

As a preventative measure it is recommended to use basic Personal Protection Equipment, with the corresponding <<CE marking>> in accordance with Directive R.D 1407/1992 and subsequent modifications. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer EPI. The indications given herein refer to the use of the pure product. The safety measures for the diluted product may differ depending on the degree of dilution, uses, application method, etc. To determine the necessity of safety showers and eyewashes at the warehouse we have to take into account the safety regulations for storage of chemical products in each particular case. For more information see subsection 7.1. Y 7.2.

All information contained herein is a recommendation which needs some specification from the labor risk prevention services as it is not known whether the company has additional measures at its disposal.

B. - Respiratory protection

Pictogram	EPI	Labelling	CEN Standard	Remarks
 Mandatory respiratory tract protection	Filter mask for gases and vapors	 CAT III	EN 149:2001+A1:2009 EN 405:2001+A1:2009	Replace when there is a taste or smell of the contaminant inside the face mask. If the contaminant comes with warnings it is recommended to use isolation equipment.

C. Specific protection for the hands

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	Protective gloves against minor risks	 CAT I		Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN 420 and EN 374.

D. Ocular and facial protection



Pictogram	EPI	Labelling	CEN Standard	Remarks
 Protection obligatoria de la cara	Gafas panorámicas contra salpicaduras y/o proyecciones	 CAT II	EN 166:2001 EN ISO 4007:2012	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

E. - Bodily protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
	Work clothing			Replace before any indication of deterioration. For prolonged periods of exposure to the product for professional / industrial users, CE III is recommended, according to the standards EN ISO 6529: 2001, EN ISO 6530: 2005, EN ISO 13688: 2013, EN 464: 1994
	Anti-slip work shoes		EN ISO 20347:2012	Replace before any indication of deterioration. For prolonged periods of exposure to the product for professional / industrial users, CE III is recommended, in accordance with EN ISO 20345 and EN 13832-1 standards.

F. - Additional emergency measures

It is not necessary to take additional emergency measures.

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2002	 Eyewash stations	DIN 12 899 ISO 3864-1:2002

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

Volatile organic compounds:

With regard to Directive 2010/75/EU, this product has the following characteristics:

V.O.C. (Supply):	0 % weight
V.O.C. density at 20 °C:	0 kg/m ³ (0 g/L)
Average carbon number:	Non-applicable
Average molecular weight:	Non-applicable

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 20 °C:	solid
Appearance:	Powdery
Color:	White <input type="checkbox"/>
Odor:	Odorless

Volatility:

Boiling point at atmospheric pressure:	Non-applicable*
Vapor pressure at 20 °C:	Non-applicable *
Vapor pressure at 50 °C:	Non-applicable *
Evaporation rate at 20 °C:	Non-applicable *

Product description:

Density at 20 °C:	1800 kg/m ³
Relative density at 20 °C:	1,8
Dynamic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 40 °C:	Non-applicable *
Concentration:	Non-applicable *
PH:	9(ASTM D3838-5)
Vapor density at 20 °C:	Non-applicable *
Partition coefficient n-octanol/water 20 °C:	Non-applicable *
Solubility in water at 20 °C:	Non-applicable *
Solubility properties:	Non-applicable *
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *
Explosive properties:	Non-applicable *
Oxidizing properties:	Non-applicable *

Flammability:

Flash Point:	Non Flammable (>60 °C)
Auto ignition temperature:	370°C
Lower flammability limit:	Non-applicable *
Upper flammability limit:	Non-applicable *

9.2 Other information:

Surface tension at 20 °C:	Non-applicable *
Refraction index:	Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

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SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:

Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Not applicable	Not applicable	Avoid direct impact

10.5 Incompatible materials:

Acids	Water	Combustive materials	Combustible materials	Others
Incompatible	Silicate formation and calcium hydroxide	Not applicable	Not applicable	Base metal salts (Al, NH ₄ ,...)

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A. - Ingestion (acute effect):

- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for consumption. For more information see section 3.
- Corrosively/Irritability: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

B- Inhalation (acute effect):

- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosively/Irritability: Based on available data, the classification criteria are not met; however, it contains substances classified as dangerous for inhalation. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):

-Contact with the skin: Based on available data, the classification criteria are not met; however, it contains substances classified as dangerous for skin contact. For more information see section 3.

Contact with the eyes: Produces serious eye damage after contact.

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects: Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitizing effects above the regulatory limits see section 3.2 Regulation (CE) 2015/830. For more information see section 2,3 and 15.

- Cutaneous: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met; however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Contact with human skin, without adequate protection, can result in skin thickening, cracking, or fissuring

Specific toxicology information on the substances:

Not available

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Toxicity:

Not available

12.2 Persistence and degradability:

Not available

12.3 Bioaccumulative potential:

Not available

12.4 Mobility in soil:

Not available

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

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SECTION 13: DISPOSAL CONSIDERATIONS (continued)

Code	Description	Waste class (Regulation (EU) No 1357/2014)
10 13 11	Wastes from cement-based composite materials other than those mentioned in 10 13 09 and 10 13 10	Non dangerous

Type of waste (Regulation (EU) No 1357/2014):

Non-applicable

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/CE, Law 22/2011). Under the codes 15 01 (2014/955/UE) and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) n°1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

National Legislation: Law 22/2011

SECTION 14: TRANSPORT INFORMATION

This product is not regulated for transport (ADR/RID,IMDG,IATA)

SECTION 15: REGULATORY INFORMATION

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

Candidate substances for authorization under the Regulation (EC) 1907/2006 (REACH): Non-applicable

Substances included in Annex XIV of REACH ("Authorization List") and sunset date: Non-applicable

Regulation (EC) 1005/2009, about substances that deplete the ozone layer: Non-applicable

Article 95, REGULATION (EU) No 528/2012: Non-applicable

REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable

Limitations to commercialization and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc.):

Non-applicable

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:

Regulation (CE) No.1272/2008 from European Parliament and Council of December 16th 2008, regarding classification, labelling and packaging of substances and mixtures, amending and repealing certain Regulations 67/548/CEE and 1999/45/CE, modifying the regulation (CE) No 1907/2006.

Royal Decree 117/2003 of 31 January, volatile organic compounds due to the use of organic solvents in certain activities.

Royal Decree 1436/2010 of November 5th by which certain royal decree are modified to be adapted to the regulation 2008/112/CE from the European Parliament and Council, modifying several directives to be adapted to the Regulation (CE) No. 1272/2008 regarding classification, labelling and packaging of substances and mixtures

The product could be affected by sectorial legislation

15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) N° 1907/2006 (Regulation (EU) N° 453/2010, Regulation (EC) N° 2015/830)

Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:

- END OF SAFETY DATA SHEET -



SECTION 16: OTHER INFORMATION

- Regulation n° 1272/2008 (CLP):
- Pictograms
- Hazard statements
- precautionary statements

Texts of the legislative phrases mentioned in section 2:

H318: Causes serious eye damage

H317: May cause an allergic skin reaction

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

CLP Regulation (EC) n° 1272/2008:

Eye Dam. 1: H318 - Causes serious eye damage

Skin Irrit. 2: H315 - Causes skin irritation

Skin Sens. 1: H317 - May cause an allergic skin reaction

STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure (Inhalation)

STOT SE 3: H335 - May cause respiratory irritation

Classification procedure:

Eye Dam. 1: Calculation method

Skin Sens. 1: Calculation method

Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

<http://esis.jrc.ec.europa.eu>

<http://echa.europa.eu>

<http://eur-lex.europa.eu>

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road

IMDG: International maritime dangerous goods code

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

COD: Chemical Oxygen Demand

BOD5: 5-day biochemical oxygen demand

BCF: Bioconcentration factor

LD50: Lethal Dose 50

CL50: Lethal Concentration 50

EC50: Effective concentration 50

Log-POW: Octanol-water partition coefficient

Koc: Partition coefficient of organic carbon

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -