



GRAS CALCE SRL

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FIBRE-REINFORCED CONCRETE

Safety Data Sheet



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

1.1. Product identifier

Mixture identification:

Trade name: FIBRE-REINFORCED CONCRETE

Trade code: GRASCALCE500N

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

Recommended use:

Normal structural concrete compliant with UNI EN 206-1 and UNI 11104 standards.

PROFESSIONAL USE

Uses advised against:

Do not use for purposes other than the indicated ones.

1.3. Details of the supplier of the safety data sheet

Supplier:

GRAS CALCE S.R.L.

via Achille Grandi 5

20056 Trezzo sull'Adda (MI) Italy

tel. +39 02 90964141

fax 02/90962801

Competent person responsible for the Safety Data Sheet:

info@grascalce.it

1.4. Emergency telephone number

Company: (+39) 02 90964141 (8:30 - 12:30 a.m. / 1:30 - 5:30 p.m.)

In case of urgent matters (h24) contact the following Poison Centres (PC):

Niguarda Ca' Granda Hospital in Milan Tel. +39 02 66101029.

Bambino Gesù Children's Hospital in Rome Tel. +39 06 68593726

Univ. Hospital in Foggia Tel. +39 0881 732326

Hospital A. Cardarelli in Naples Tel. +39 081 7472870

Umberto I General Hospital in Rome Tel. +39 06 49978000

A. Gemelli General Hospital in Rome Tel. +39 06 3054343

Hospital Careggi Medical Toxicology O.U. in Florence Tel. +39 055 7947819

Toxicological Information National Centre in Pavia Tel. +39 0382 24444

Papa Giovanni XXII University Hospital in Bergamo Tel. +39 800883300

SECTION 2: hazards identification

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2.1. Classification of the substance or mixture

Criteria of Regulation (EC) No 1272/2008 (CLP):

- Skin Irrit. 2, H315 Causes skin irritation.
- Eye Dam. 1, H318 Causes serious eye damage.
- Skin Sens. 1B, H317 May cause an allergic skin reaction.
- STOT SE 3, H335 May cause respiratory irritation.

Harmful physicochemical effects on human health and the environment:

No other hazards

2.2. Label elements

Danger pictograms:



Danger

Indications of Danger:

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

Precautionary Statements:

- P102 Keep out of reach of children
- P261 Avoid breathing dust.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves/eye protection/face protection.
- P302+P352 IF ON SKIN: wash with plenty of soap and water.
- P304+P340 IF INHALED: remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P305+P351+P338 IF 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 CENTRE or doctor.
- P333+P313 If skin irritation or rash occurs: seek medical advice.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- P501 Dispose of contents/container in accordance with regulation.

Special provisions:

None

Contains

PORTLAND CEMENT CLINKER
FLUE DUST

2.3. Other hazards

vPvB Substances: None - PBT Substances: None

Other hazards:

Cement and cement-containing mixtures may irritate eyes, mucous membranes, throat and respiratory system and cause coughing. Frequent inhalation of cement and cement-



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containing mixtures for a long period of time increases the risk of onset of lung diseases. Repeated and prolonged contact of cement on damp skin, because of perspiration or moisture, may cause irritation and/or dermatitis. (source: supplier's Safety Data Sheet). Both cement and cement-containing mixtures and their pastes, in case of prolonged contact with skin, may cause sensitisation (because of the presence in traces of chromium salts VI); where necessary, such effect is reduced by adding a specific reducing agent to keep the soluble chromium VI content below 0.0002 % (2 ppm) of the total dry weight of the cement, in accordance with legislation referred to at point 15.

In the event of significant ingestion, cement may cause ulcers on digestive tract.

Under normal use, cement and its mixtures do not pose particular risks for the environment, subject to compliance with the recommendations referred to in the following points 6, 8, 12 and 13.

SECTION 3: composition/information on ingredients

3.1. Substances

Not applicable.

3.2. Mixtures

Hazardous components within the meaning of CLP Regulation and relevant classification:

Q.ty	Name	Identification number	Classification
80 - 90 %	CRYSTALLINE SILICA - ALPHA QUARTZ ($\varnothing > 10 \mu$)	CAS: 14808-60-7 EC: 238-878-4	Substance with a Community workplace exposure limit.
15 - 20 %	PORTLAND CEMENT CLINKER	CAS: 65997-15-1 EC: 266-043-4	3.2/2 Skin Irrit. 2 H315 3.3/1 Eye Dam. 1 H318 3.4.2/1B Skin Sens. 1B H317 3.8/3 STOT SE 3 H335
0.5 - 1.5 %	FLUE DUST	CAS: 68475-76-3 EC: 270-659-9 REACH No.: 01-2119486767-17	3.2/2 Skin Irrit. 2 H315 3.3/1 Eye Dam. 1 H318 3.4.2/1 Skin Sens. 1 H317 3.8/3 STOT SE 3 H335

SECTION 4: first aid measures

4.1. Description of first aid measures

In case of contact with skin:

For dry mixture, remove and wash with plenty of water. For wet/moist mixture, wash skin with plenty of water and soap with a neutral pH value or suitable light detergent. Take off the contaminated clothes, shoes and goggles, and clean them thoroughly before wearing them again. Always seek medical advice in case of irritation or burns. □

In case of contact with eyes:

Do not rub your eyes to avoid possible damage to the cornea. Remove contact lenses, if any. Tilt the head in the direction of the hit eye, open eyelids widely and rinse with plenty



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of water for at least 20 minutes to remove all residues. If possible, use isotonic water (0.9% NaCl). Contact a specialist in labour medicine or an ophthalmologist.

In case of ingestion:

Do not induce vomit. If the person is conscious, wash mouth with water and let him/her drink a large amount of water. Immediately call a doctor or the Poison Centre.

In case of inhalation:

Move the person to fresh air. The dust inside throat and nostrils should be naturally removed. Seek medical attention if irritation persists, if it appears at a later stage or if other discomfort conditions, such as cough or other symptoms, persist.

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

No data available for mixture. For the symptoms and effects due to the contained substances, refer to chap. 11.

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

In case of accident or sickness, seek medical advice immediately (if possible show the doctor the instructions for use or the safety data sheet).

Treatment:

Symptomatic treatment.

SECTION 5: fire-fighting measures

5.1. Extinguishing media

Appropriate extinguishing media:

Sprayed water.

Carbon dioxide (CO₂).

Dust.

Foam.

Extinguishing media that must not be used for safety reasons:

Direct water jets.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Combustion produces heavy smoke.

5.3. Advice for fire-fighters

Use suitable respiratory equipment.

Collect contaminated fire-fighting water separately. Do not discharge it in the sewerage.

If feasible with regard to safety, move undamaged containers from immediate hazard area.

SECTION 6: accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protective equipment.

In case of exposure to vapours/dusts/aerosol, wear respiratory equipment.

Provide adequate ventilation.

Use a suitable respiratory protection.

Consult protective measures stated at points 7 and 8.

6.2. Environmental precautions



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Prevent soil/subsoil penetration. Prevent discharge in surface water or in the sewerage.

Retain contaminated washing water and dispose of it.

In the event of penetration in water streams, soil or sewerage inform responsible authorities.

Suitable material for collection: , absorbing material, organic material, sand

6.3. Methods and material for containment and cleaning up

Use dry-cleaning methods such as vacuum aspirators or extractors (industrial portable devices, equipped with high-efficiency particulate filters or equivalent systems), that do not disperse dust in the environment. Never use compressed air.

Ensure that workers wear suitable personal protective equipment (see section 8) in order to prevent inhalation of cement dust or mixtures containing cement and the contact with skin and eyes. Store the spilled material in containers for future use.

In case of spills of considerable amounts of cement or mixtures containing cement close/cover any water collection manholes present in immediate proximity.

6.4. Reference to other sections

See also paragraphs 8 and 13.

SECTION 7: handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, vapour and mist inhalation.

Use localised ventilation system.

Do not use empty containers before they have been cleaned.

Before transfer operations, ensure that incompatible residual materials are not present in the containers.

Do not sweep and do not use compressed air. Use dry-cleaning methods (such as vacuum aspirators or extractors) that do not cause dispersion of cement dust or of mixtures containing cement in the air.

Contaminated clothing must be replaced before accessing dining areas.

Do not eat or drink while working.

See also paragraph 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Store in closed containers and away from moisture.

Store in well ventilated premises.

Keep away from food, drinks and feedstuff.

Incompatible materials:

See the following paragraph 10.

Indications for premises:

Cool and well ventilated.

Cement and cement mixtures must be stored under water-tight, dry (i.e. with minimal inner condensation), clean conditions protected against contamination. Burial risk: cement can thicken or adhere to the surfaces of the confined storage area. Cement can unexpectedly crumble, collapse or fall.

To prevent the risk of burial or suffocation, do not access confined areas, such as silos, containers, lorries for loose material, or other storage containers used to store or contain cement or cement mixtures without adopting the suitable safety measures. Store mixture out of reach of children, away from acids, inside special closed containers (storage silos



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and packages), in a cool and dry place and without ventilation so as to preserve its technical characteristics avoiding, in any case, dust dispersion (see point 10).

Effectiveness of the reducing agent of chromium VI:

Package integrity and respect of the storage conditions mentioned above are essential conditions to ensure preservation of the reducing agent effectiveness for the period of time indicated in the delivery note (both for packed and loose product) and also on every single pack. Such time limit concerns exclusively the reducing agent effectiveness to keep the level of water-soluble chromium VI, determined according to standard EN 196-10, below the limit of 0.0002% of the total dry weight of the cement ready for use imposed by the prevailing legislation (see par. 15), without prejudice to the limits of use of the mixture indicated by the general rules of conservation and use of the product.

7.3. Specific end uses

See point 1.2 of this sheet.

SECTION 8: exposure control/personal protection

8.1. Control parameters

CRYSTALLINE SILICA - ALPHA QUARTZ ($\text{Ø} > 10 \mu$) - CAS: 14808-60-7

TLV TWA - 0.025 mg/m³ (breathable fraction) - 0.15 mg/m³ (inhalable fraction)

PORTLAND CEMENT CLINKER - CAS: 65997-15-1

TLV TWA - 1 mg/m³ (breathable dust) - 10 mg/m³ (inhalable dust)

DNEL exposure limit values

Data not available.

PNEC exposure limit values

Data not available.

8.2. Exposure controls

General information

The adequate measures for workers' protection and for limiting the emission of harmful substances into the workplace must be adopted in the plants where cement and cement mixtures are handled, transported, loaded, unloaded and stored. Do not eat, drink or smoke while working with the mixture in order to avoid contact with skin or mouth.

After having handled cement or cement-based products/mixtures, wash yourself with a mild soap or a suitable light detergent. Take off the contaminated clothes, shoes and goggles, and clean them thoroughly before wearing them again.

Eye protection:

Wear goggles with side protections (EN 166).

Skin protection:

Complete protective clothing resistant to chemicals. The type of protective equipment must be selected based on the concentration and quantity of the hazardous substance at the workplace.

Hand protection:

Use gloves compliant to UNI EN 374, resistant to abrasion and alkalis.

Respiratory protection:

When a person is potentially exposed to dust levels above the exposure limits, use suitable respiratory protection based on the dust level and in compliance with the applicable EN standards (i.e. facial filter according to UNI EN 149).

Personal protective equipment, defined according to the checks localised and assessed for



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a DNEL value = 1 mg/m³, is indicated in the table below.

Exposure scenario	PROC (*)	Exposure	Specific Respiratory Protective Equipment (RPE)	RPE effectiveness - Assigned Protection Factor (APF)
Industrial manufacture / formulation of hydraulic building and construction materials	2, 3	Unlimited duration (up to 480 minutes per workshift, no. 5 workshifts a week)	Not required	-
	14, 26		A) P2 respirator (FF, FM) or B) P1 respirator (FF, FM)	APF= 10 APF= 4
	5, 8b, 9		P2 respirator (FF, FM)	APF= 10
Industrial uses of dry hydraulic building and construction materials (indoor, outdoor)	2		Not required	-
	14, 22, 26		A) P2 respirator (FF, FM) or B) P1 respirator (FF, FM)	APF= 10 APF= 4
	5, 8b, 9		P2 respirator (FF, FM)	APF= 10
Industrial uses of wet suspension of hydraulic building and construction materials	7		A) P3 respirator (FF, FM) or B) P2 respirator (FF, FM)	APF= 20 APF= 10
	2, 5, 8b, 9, 10, 13, 14		Not required	-
Professional uses of hydraulic building and construction material (indoor and outdoor)	2		A) P2 respirator (FF, FM) or B) P1 respirator (FF, FM)	APF= 10 APF= 4
	9, 26		A) P3 respirator (FF, FM) or B) P2 respirator (FF, FM)	APF= 20 APF= 10
	5, 8a, 8b, 14		P3 respirator (FF, FM)	APF= 20
	19 (< 240 min)		P3 respirator (FF, FM)	APF= 20
Professional uses of wet suspension of hydraulic building and construction materials	11	A) P3 respirator (FF, FM) or B) P2 respirator (FF, FM)	APF= 20 APF= 10	



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	2, 5, 8a, 8b, 9, 10, 13, 14, 19		Not required	-
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(*) PROCs are identified uses as defined in section 1.2

N.B.: examples of Assigned Protection Factors (APF) for several Respiratory Protective Equipment (RPE), according to EN 529:2005, can be found in MEASE methodology glossary.

Thermal risks:

None

Environmental exposure controls:

See sections 7 and 13.

Suitable technical checks:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Property	Value	Method:	Notes
Appearance and colour:	grey dust	--	--
Odour:	odourless	--	--
Odour threshold:	Not Considerable	--	--
pH:	11 - 13	--	Water solution
Melting/freezing point:	Not Considerable	--	--
Initial boiling point and boiling range:	not applicable (solid)	--	--
Flash point:	not applicable (solid)	--	--
Evaporation rate:	not applicable (solid)	--	--
Solid/gas flammability:	non-flammable	--	--
Upper/lower flammability or explosive limit:	not applicable	--	--
Vapour pressure:	not applicable (solid)	--	--
Vapour density:	not applicable (solid)	--	--
Relative density:	2.3 Kg/l	--	--
Water solubility:	Insoluble	--	--
Solubility in oil:	Not Considerable	--	--
Partition coefficient (n-octanol/water):	Not Considerable	--	--
Auto-ignition temperature:	Not Considerable	--	--
Decomposition temperature:	Not Considerable	--	--
Viscosity:	not applicable (solid)	--	--



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Explosive properties:	non-explosive	--	--
Oxidising properties:	non-oxidizing	--	--

9.2. Other information

Property	Value	Method:	Notes
Miscibility:	Not Considerable	--	--
Fat solubility:	Not Considerable	--	--

SECTION 10: stability and reactivity

10.1. Reactivity

When mixed with water, cement and cement mixtures harden by forming a stable mass not reacting with the environment.

10.2. Chemical stability

When cement gets into contact with the hydrofluoric acid, it decomposes itself producing corrosive tetrafluoride silica gas. Cement reacts with water and forms silicates and calcium hydroxide. The silicates inside cement react with heavy oxidation agents such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride and oxygen bifluoride.

Cement, as such, will be stable for as long as it is correctly stored (see sect. 7). It must be kept dry. Avoid contact with incompatible materials.

Wet cement is alkaline and incompatible with acids, ammonium salts, aluminium and other non-noble metals. When cement gets into contact with the hydrofluoric acid, it decomposes itself producing corrosive tetrafluoride silica gas. Cement reacts with water and forms silicates and calcium hydroxide. The silicates inside cement react with heavy oxidation agents such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride and oxygen bifluoride.

Package integrity and respect of the storage conditions mentioned in point 7.2 (special closed containers, cool and dry place and without ventilation) are essential conditions to ensure preservation of the reducing agent effectiveness for the specified period of time.

10.3. Possibility of hazardous reactions

Hazardous reactions are not predictable under normal use and storage conditions. In any case avoid contact with incompatible materials.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Cements and mixtures containing wet cement are alkaline and incompatible with acids, ammonium salts, aluminium and other non-noble metals. In case of contact with aluminium powders, cement and mixtures containing wet cement provoke formation of hydrogen.

10.6. Hazardous decomposition products

Due to thermal decomposition or in case of fire, gases and vapours - like carbon dioxide, carbon monoxide and irritant fumes - potentially harmful to the health may be released.

SECTION 11: toxicological information

11.1. Information on toxicological effects



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Product toxicological information:

- a) acute toxicity
Not classified
Based on available data, the classification criteria are not met.
- b) corrosion/skin irritation
Product is classified as: Skin Irrit. 2 H315
- c) serious eye damage/irritation
Product is classified as: Eye Dam. 1 H318
- d) respiratory or skin sensitisation
Product is classified as: Skin Sens. 1B H317
- e) germ cell mutagenicity
Not classified
Based on available data, the classification criteria are not met.
- f) carcinogenicity
Not classified
Based on available data, the classification criteria are not met.
- g) reproductive toxicity
Not classified
Based on available data, the classification criteria are not met.
- h) STOT – single exposure
Not classified
Based on available data, the classification criteria are not met.
- i) STOT – repeated exposure
Not classified
Based on available data, the classification criteria are not met.
- j) aspiration hazard
Not classified
Based on available data, the classification criteria are not met.

Toxicological information of product main substances:

PORTLAND CEMENT CLINKER - CAS: 65997-15-1

- a) acute toxicity:
Test: LD50 - By: Skin - Species: Rabbit = 2000 mg/kg - Source: Based on available data
By: Inhalation Negative - Source: Based on available data
By: Oral Uptake Negative - Source: Based on available data
- b) corrosion/skin irritation:
Test: Irritating to the skin - By: Skin Positive - Source: Human experience -
Remarks: Cement in contact with wet skin may cause thickening, cracking or fissuring of the skin. Prolonged contact in combination with existing abrasion may cause severe burns.
- c) serious eye damage/irritation:
Test: Corrosive to the eyes - By: Eyes Positive - Remarks: Clinker caused a mixed picture of corneal effects and the calculated irritation index was 128.
Direct contact with cement may cause corneal damage by mechanical stress, immediate or delayed irritation or inflammation. Direct contact with great amounts

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of dry cement or splashes of wet cement may cause effects ranging from moderate eye irritation (e.g. conjunctivitis or blepharitis) to chemical burns and blindness.

d) respiratory or skin sensitisation:

Test: Skin sensitisation - By: Skin Positive - Remarks: Some individuals may develop eczema upon exposure to wet cement dust, caused both by the high pH which induces irritant contact dermatitis after prolonged contact, and by an immunological reaction to soluble chromium (VI) which elicits allergic contact dermatitis. The response may appear in a variety of forms ranging from a mild rash to severe dermatitis and is a combination of the two above-mentioned mechanisms. No sensitisation effect is expected if cement contains a water-soluble reducing agent of Cr (VI) as long as the indicated period of effectiveness of such reducing agent has elapsed.

Test: Sensitisation by inhalation Negative - Source: Based on available data

e) germ cell mutagenicity:

Negative - Source: Based on available data

f) carcinogenicity:

Negative - Source: Based on available data - Remarks: No causal association has been established between Portland cement exposure and cancer.

The epidemiological literature does not support the designation of Portland cement as a suspected human carcinogen.

Portland cement is not classifiable as a human carcinogen (according to ACGIH A4: agents which cause concern that they could be carcinogenic for humans, but which cannot be assessed conclusively because of a lack of data. In vitro or animals studies do not provide indications of carcinogenicity which are sufficient to classify the agent into one of the other categories).

g) reproductive toxicity:

Negative - Source: Human experience

h) STOT – single exposure:

Positive - Remarks: Cement dust may irritate the throat and respiratory tract. Coughing, sneezing, and shortness of breath may occur following exposures above the occupational exposure limits.

Overall, the pattern of evidence clearly indicates that occupational exposure to cement dust has produced deficits in respiratory function. However, evidence available at the present time is insufficient to establish with any confidence the dose-response relationship for these effects.

i) STOT – repeated exposure:

Negative - Source: Based on available data - Remarks: There is an indication of COPD. The effects are acute and due to high exposures. No chronic effects or effects at low concentration have been observed.

j) aspiration hazard:

Not applicable.

CRYSTALLINE SILICA ($\text{Ø} > 10 \mu$) CAS: 14808-60-7,

Corrosiveness/Irritant power:

Skin: repeated direct contacts may cause a temporary irritation. Eye: direct contact may cause a mild temporary irritation. Sensitizing potential: no effect detected.

Carcinogenicity

IARC (International Agency for Research on Cancer) considers that crystalline



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silica inhaled in workplaces may cause lung cancer in human beings. However, it should be noted that the carcinogenic effect depends on silica characteristics and on biological and physical conditions of the environment. It seems proved that the risk of cancer development is limited to people who are already suffering silicosis.

According to the studies currently available, the protection of workers against silicosis would be assured by respecting the current occupational exposure limit values.

SECTION 12: ecological information

12.1. Toxicity

Use according to good working practices, avoiding to dispose of the product into the environment.

Not classified for hazards for the environment

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

PORTLAND CEMENT CLINKER - CAS: 65997-15-1

a) Acute water toxicity:

Remarks: The cement is not hazardous to the environment. Ecotoxicological tests with Portland cement on *Daphnia magna* and *Selenastrum coli* have shown little toxicological impact. Therefore LC50 and EC50 values cannot be determined. There is no indication of sediment phase toxicity. The addition of large amounts of cement to water may, however, cause a rise in pH and may, therefore, be toxic to aquatic life under certain circumstances.

12.2. Persistence and degradability

PORTLAND CEMENT CLINKER - CAS: 65997-15-1

Biodegradability: Not relevant, since cement is an inorganic material. After hardening, cement presents no toxicity risks.

12.3. Bioaccumulative potential

PORTLAND CEMENT CLINKER - CAS: 65997-15-1

Not relevant, since cement is an inorganic material. After hardening, cement presents no toxicity risks.

12.4. Mobility in soil

PORTLAND CEMENT CLINKER - CAS: 65997-15-1

Not relevant, since cement is an inorganic material. After hardening, cement presents no toxicity risks.

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

12.6. Other adverse effects

None

SECTION 13: disposal considerations

13.1. Waste treatment methods

Collect if possible. Product residues are considered as special waste. Dangerousness of waste containing a part of this product should be assessed according to the existing legislative provisions. Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.



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Contaminated packages must be sent for recycling or disposal in compliance with local and national regulations on waste management.

SECTION 14: transport information

- 14.1. UN number
Not classified as a dangerous good under transport regulations.
- 14.2. UN proper shipping name
Not applicable.
- 14.3. Transport hazard classes
Not applicable.
- 14.4. Packaging group
Not applicable.
- 14.5. Hazards for the environment
ADR-Environmental contaminant: No
IMDG-Marine pollutant: No
- 14.6. Special precautions for users
Not applicable.
- 14.7. Transport in bulk according to annex II of MARPOL and the IBC code
Not applicable.


SECTION 15: information on regulation

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

- Legislative Decree 09/04/2008 no. 81
Ministerial Decree of Labour 26/02/2004 (Occupational exposure limits)
Regulation (EC) no. 1907/2006 (REACH)
Regulation (EC) no. 1272/2008 (CLP)
Regulation (EC) no. 790/2009 (ATP 1 CLP) and (EU) no. 758/2013
Regulation (EU) 2015/830
Regulation (EU) no. 286/2011 (ATP 2 CLP)
Regulation (EU) no. 618/2012 (ATP 3 CLP)
Regulation (EU) no. 487/2013 (ATP 4 CLP)
Regulation (EU) no. 944/2013 (ATP 5 CLP)
Regulation (EU) no. 605/2014 (ATP 6 CLP)
Regulation (EU) no. 2015/1221 (ATP 7 CLP)

Restrictions relevant to the product or contained substances in accordance with Annex XVII of Regulation (EC) 1907/2006 (REACH) and subsequent amendments:

Restrictions on the marketing and use of cement for content of chromium VI: Regulation no. 1907/2006/EC concerning registration, evaluation, authorisation and restriction of use of chemical substances ("REACH"), on p. 47 of annex XVII, as amended by Regulation no. 552/2009/EC, prohibits to market and use cement and its preparations (mixtures) if, once mixed with water, they contain more than 0.0002% (2 ppm) of water-soluble chromium VI of the total dry weight of the cement. Compliance with this threshold is ensured by adding a reducing agent to the cement, whose effectiveness is assured for a defined period of

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time and with continuous compliance with suitable storage methods (indicated in points 7.2 and 10.2).

Under that Regulation, the use of the reducing agent involves communication of the following information:

DATE OF PACKING	Indicated on the package or in the delivery note
STORAGE CONDITIONS (*)	In suitable closed containers in a cool and dry place and in the absence of ventilation, ensuring the integrity of the package
STORAGE PERIOD (*)	According to the indications on the package

(*) to preserve effectiveness of the reducing agent

Such time limit concerns exclusively the reducing agent effectiveness with respect to chromium salts VI, without prejudice to the limits of use of the product indicated by the general rules of conservation and use of the product.

Cement, according to REACH Regulation, is a mixture and, as such, is not subject to the obligation of registration, that concerns instead the substances. Portland cement clinker is a substance (classified as UVCB inorganic substance) exempted from registration in accordance with art. 2.7 (b) and Annex V.10 of REACH Regulation. If some substances used in the cement require registration and arrangement of the relevant exposure scenarios, they will be included in annexes to the SDS when they are available.

Refer to the following regulations, where applicable:

Ministerial circulars 46 and 61 (Aromatic amines).
 Directive 2012/18/EU (Seveso III)
 Regulation 648/2004/EC (Detergents).
 Decree-Law 03/04/2006 no. 152 Environmental regulations
 Dir. 2004/42/EC (COV Directive)

Provisions of EU 2012/18 directive (Seveso III):

Seveso III category in compliance with Annex 1, part 1
 None

15.2. Assessment of chemical safety

A chemical safety assessment of the mixture has not been carried out
 A chemical safety assessment has been carried out for the following substances:
 FLUE DUST

SECTION 16: other information

Text of phrases referred to under paragraph 3:

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



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H335 May cause respiratory irritation.

Hazard class and category	Code	Description
Skin Irrit. 2	3.2/2	Skin irritation, Category 2
Eye Dam. 1	3.3/1	Serious eye damage, Category 1
Skin Sens. 1	3.4.2/1	Skin sensitisation, Category 1
Skin Sens. 1B	3.4.2/1B	Skin sensitisation, Category 1B
STOT SE 3	3.8/3	STOT - single exposure, Category 3

This sheet has been reviewed in all its sections in compliance with Regulation 2015/830. Classification and procedure used to derive it according to regulation (EC)1272/2008 [CLP] relating to mixtures:

Classification according to regulation (EC) no. 1272/2008	Classification procedure
Skin Irrit. 2, H315	Calculation method
Eye Dam. 1, H318	Calculation method
Skin Sens. 1B, H317	Calculation method
STOT SE 3, H335	Calculation method

This document has been drawn up by an SDS competent technician having received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

Istituto Superiore di Sanità (National Institute of Health) - Inventario Nazionale Sostanze Chimiche (National Inventory of Chemical Substances)

The information set out therein relies on our knowledge on the date indicated above. It only refers to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is suitable and complete with respect to his/her specific intended use.

This data sheet cancels and replaces any previous edition.

The following sections have been modified:

01 / 02 / 03 / 04 / 05 / 06 / 07 / 08 / 09 / 10 / 11 / 12 / 13 / 14 / 15 / 16

ADR: European agreement on the transport of dangerous goods by road.

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

CLP: Classification, Labelling, Packaging.

DNEL: Derived no-effect level.

EINECS: European Inventory of Existing Commercial chemical Substances.

GefStoffVO: Dangerous substances order in Germany.



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GHS:	Globally Harmonised System of Classification and Labelling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organisation.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organisation" (ICAO).
IMDG:	International agreement on the Maritime transport of Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration for 50 percent of tested population.
LD50:	Lethal dose for 50 percent of tested population.
PNEC:	Predicted no-effect concentration.
RID:	Regulation on the international transport of dangerous goods by railway.
STEL:	Short-Term Exposure Limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limit Value.
TWA:	Time-weighted average
WGK:	Water hazard class (Germany).