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 TERAFLX® SUPER FLEX  
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## TERAFLEX® SUPER FLEX IMPROVED FLEXIBLE ADHESIVE

elastic adhesive with increased strength for  
 bonding of ceramic tiles and granite tile floors  
 outdoors and bonding of heavy loaded bases indoors

### 1. Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Mixture  
 Trade name : TERAFLX® SUPER FLEX

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

##### 1.2.1 Relevant identified uses

TERAFLEX® SUPER FLEX is an elastic adhesive for applying granite tile floors and other large size floor tiles (up to 60x60 cm) in heavy load premises. Its excellent workability allows very good covering of the contact surfaces, which guarantees perfect bonding. It is suitable for bonding ceramics over floor heating and hydro insulated surfaces.

##### 1.2.2. Uses advised against

No additional information available than those specified in the technical documents of the product

#### 1.3. Details of the supplier of the safety data sheet

MARISAN & Kolev Ltd.  
 East Industrial Zone  
 15, Kalna Dere Str.  
 7009, Ruse, Bulgaria

Tel.: +359-82-519 721

e-mail: [office@marisanbg.com](mailto:office@marisanbg.com) – <http://www.marisanbg.com/bg>

#### 1.4. Emergency telephone number

Tel.: 112

Country	Organization/company	Address	Emergency telephone number
Bulgaria	National Toxicology Center Hospital for Active Medical Treatment and Emergency Medicine "N.I. Pirogov"	21 Gen. „Edward I. Totleben“ Blvd. 1606 Sofia	+359 2 9154 233

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## 2. HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or the mixture – mixture:

#### 2.1.1. Classification in according to Regulation № 1272/2008 (CLP)

Skin Irrit. 2	Skin corrosion/irritation, Category 2	H315
Eye Dam. 1	Serious eye damage/eye irritation, Category 1	H318
Skin Sens. 1	Sensitisation — skin, Category 1	H317
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3	H335

Full text of H statements: see Section 16

#### 2.1.2 Adverse physicochemical, human health and environmental effects

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

### 2.2. Label elements

#### 2.2.1. Labeling in accordance with Regulation (EU) 1272/2008 (CLP)

##### Hazard pictograms (CLP):



GHS05



GHS07

**Signal word (CLP)**  
**Hazardous ingredients**

**DANGER**  
**Cement, Portland**

##### Hazard statements (CLP)

H 315	Causes skin irritation
H 317	May cause an allergic skin reaction
H 318	Causes serious eye irritation
H 335	May cause respiratory irritation

##### Precautionary statements (CLP)

P102	Keep out of reach of children
P261	Do not breathe dust
P271	Use only outdoors or in a well-ventilated area
P280	Wear protective gloves/protective clothing/eye protection/face protection
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P 310	Immediately call a TOXICOLOGY CENTER or doctor/physician
P302+P352	IF ON SKIN: Wash with plenty of soap and water
P333+P313	If skin irritation or a rash occurs: Get medical advice/attention.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

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P312 Call a TOXICOLOGY CENTER or doctor if you feel unwell  
P501 Dispose of contents/container to in accordance with local/regional/national/international regulations

**EUH-statements**

EUH208 Contains cement, Portland (65997-15-1). May produce an allergic reaction

**2.3. Other hazards**

No additional information available  
Results from PBT or vPvB hazards:  
- PBT – the mixture is not tested  
- vPvB – the mixture is not tested

The product contains a substance to reduce the content of chromium in the cement. As a result, the soluble chromium (Cr VI) content is less than 2 ppm. If the storage conditions are inappropriate or expired, the effectiveness of the reducing agent may be reduced and cement may cause skin sensitisation (H 317 or EUH 203).

**3. Composition / Information on ingredients**

**3.1. Substances** - not applicable

**3.2. Mixture**

Name	Product identifiers	%	Classification according to Regulation (EC) No 1272/2008 [CLP]
CEMENT, PORTLAND	CAS № 65997-15-1 EO № 266-043-4	13 - 14	Acute Tox. 4 (Dermal), H312 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT SE 3, H335
Other components, including a reducing agent	Not classified as dangerous or have a concentration determined in accordance with Regulation (EC) No 1272/2008 [CLP].		

For more information on the hazard level of the substances, see Sections 8, 11, 12, 15 and 16.

Full text of H-phrases: see Section 16.

**4. First aid measures****4.1. Description of first aid measures****First aid by inhalation:**

No personal protective equipment are required for first aid responders.  
Remove the person to fresh air and keep comfortable for breathing.

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**First aid by skin contact:**

Wash skin with plenty of water.  
If skin irritation or rash occurs: Get medical advice/attention.  
Take off contaminated clothing and clean thoroughly before use.

**First aid by eye contact:**

Do not rub eyes, as it is possible further mechanical damage to the cornea.  
After removing the contact lenses, rinse the eyes with plenty of water for 15 minutes by lifting the eyelids. If complaints continues seek medical help.

**First aid after ingestion:**

Do not induce vomiting, but if it happens, keep the head upright to avoid inhalation. If the victim is conscious, wash with water and drink **plenty** of water. If you feel unwell, call a toxicology center or doctor.

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

Symptoms/injuries after skin contact	Irritation. May cause an allergic skin reaction.
Symptoms/injuries after eye contact	Prolonged or repeated exposure may cause serious damage to the eyes.
Symptoms/injuries after inhalation	Often the inhalation of large amounts of cement dust contained in the product for a prolonged period of time increases the risk of developing lung diseases.

Acute and consequential effects are set out in paragraphs 2 and 11.

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

Treat symptomatically.

**5. Firefighting measures****5.1 Extinguishing media**

The product is not flammable

**Suitable extinguishing agents:**

Foam, carbon dioxide, dry powders, water spray

**Unsuitable extinguishing agents for security reasons:**

Are not known

**5.2 Special hazards arising from the substance or mixture****Hazardous decomposition products in case of fire:**

The product does not present a fire hazard, but some packaging materials may be flammable.

**5.3 Advice for firefighters****Protection during firefighting:**

Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus.  
Complete protective clothing

**5.4. More information:**

When burning the packaging, can be released carbon monoxide, carbon dioxide, etc. Fire residues and



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contaminated fire extinguishing water must be removed in accordance with local regulations.

## 6. Accidental release measures

### **6.1. Personal precautions, protective equipment and emergency procedures:**

#### **6.1.1. For non-emergency personnel**

Performs the instructions of the emergency responder staff responsible for emergencies according to the disaster and accident evacuation plan. In case of strong dust, use respiratory protective equipment.

#### **6.1.2. For emergency responders**

Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### **6.2. Precautions for environmental protection:**

Do not let the release of dust in the environment. Do not release into the canalization, into subterranean water. In case that the product has been released, inform the competent authorities.

### **6.3. Methods and materials for containment and cleaning up:**

#### **Cleaning methods:**

The product should be collected mechanically by a non-airborne method.

#### **Other information:**

The material or solid residues should be disposed of at the designated location. Waste treatment should be carried out in accordance with point 13.

## 7. Handling and storage

### **7.1. Precautions for safe handling**

#### **Precautions for safe handling:**

Ensure good ventilation in the workplace. Follow the recommendations in point 8.

#### **Hygiene measures:**

Observe hygiene requirements at work. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### **7.2. Conditions for safe storage, including any incompatibilities:**

#### **Conditions for storage:**

Store in a well-ventilated and dry place. Keep cool. Protect from moisture.

### **7.3. Specific and end-use(s)**

The product has no other uses than those specified on the label and product data sheet.

### **7.4. Control of soluble chromium (Cr VI)**

For cement treated with a Cr (VI) reducing agent according to the regulations given in Section 15, the effectiveness of the reducing agent diminishes with time. Therefore, cement bags and/or delivery documents will contain information on the packaging date, the storage conditions and the storage period appropriate to maintaining the activity of the reducing agent and to keeping the content of soluble chromium

VI below 0.0002 % of the total dry weight of the cement ready for use.

## 8. Exposure controls/personal protection

### 8.1. Control parameters

CEMENT, PORTLAND (65997-15-1)		
Bulgaria	Local name	Cement dust containing less than 2% free crystalline silica in the respirable fraction (Annex I of Regulation 13 on the protection of workers from the risks related to exposure to chemical agents at work).
Bulgaria	OEL TWA (mg/m <sup>3</sup> )	8 mg/m <sup>3</sup> Inhalable fraction

### 8.2. Exposure control

#### 8.2.1. Appropriate technical control:

The user can choose option A or B from the following table, whichever is most appropriate for the situation and process. The selected option must be the same for both tables (for engine control and for individual protection measures).

Ensure good ventilation in the workplace and avoid dust removal at work.

#### A) Appropriate engineering control for cement: DNEL inhalation - 8 mg / m3.

CEMENT, PORTLAND (65997-15-1)				
USE	CATEGORY OF PROCESS *	EXPOSURE	LOCALIZED CONTROL	EFFICIENCY
Industrial manufacture/formulation of hydraulic building and construction materials	2,3	Duration is not restricted (up to 480 minutes per shift, 5 shifts per week).	not required	-
	14,26		A) not required or B) general ventilation	57%
	5, 8b, 9		A) not required or B) general local exhaust ventilation	78%
Professional uses of dry hydraulic bonding building and construction materials (indoor and outdoor)	2		not required	-
	14, 22, 26		A) not required or B) general local exhaust ventilation	78%
	5, 8b, 9		A) not required or B) general local exhaust ventilation	78%
Professional uses of wet suspension of hydraulic building and construction materials	7	A) not required or B) general local exhaust ventilation	78%	
	2, 5, 8b, 9, 10, 13, 14	not required	-	
Professional use of dry hydraulic	2	not required	-	



building and construction material (indoor, outdoor)	9, 26	A) not required or B) general local exhaust ventilation	- 72%
	5, 8a, 8b, 14	A) not required or B) general local exhaust ventilation	- 72%
	19	Localized control is not applicable. The process can only be carried out in well-ventilated premises or outdoors.	50%
Professional use of wet suspensions of hydraulic building and construction materials	11	A) not required or B) general local exhaust ventilation	- 72%
	2, 5, 8a, 8b, 9, 10, 13, 14, 19	not required	-

\* PROC's are identified uses and defined in point 16.2.

**B) Individual protection measures such as personal protection equipment – flue dust and clinker:** the same as the cement.

**C) Individual protection measures such as personal protection equipment - grinding aid and reducing agent:** Not relevant because the concentrations of these substances are below the concentration limits set up in the CLP 1272 / 2008 (see point 3).

### 8.2.2. Individual protection measures such as personal protective equipment

#### Hand protection:

Protective chemical resistant gloves (butyl rubber or nitrile rubber) in accordance with EN 374. The breakthrough time should be understood by the manufacturer. After washing hands, the lost greasy skin is restored using fat-containing cream.

#### Eye protection:

Tightly fitting safety goggles type 2A5, in accordance with EN 166.

#### Skin and body protection:

Wear suitable protective clothing.

#### Respiratory protection:

No special protection is required. Normal/natural ventilation is sufficient. In the case of insufficient ventilation and exposure to dust above the exposure limits, use a multifunctional filter with a transmittance class depending on the concentration of the pollutants in accordance with the relevant EN 149, EN 140, EN 14387, EN 1827 or other national standard.

**A) Individual protection measures such as personal protection equipment for cement:** DNEL inhalation - 8 mg / m<sup>3</sup>

CEMENT, PORTLAND (65997-15-1)				
USE	CATEGORY OF PROCESS *	EXPOSURE	Specification of respiratory protective equipment (RPE)	RPE efficiency - assigned protection factor (APF)
Industrial manufacture/formulation of hydraulic building and construction materials	2,3	Duration is not restricted (up to 480 minutes per shift, 5 shifts per week).		-
	14,26		A) P1 mask (FF, FM) or B) not required	APF = 4 -
	5, 8b, 9		A) P1 mask (FF, FM) or B) not required	APF = 4 -
Industrial uses of dry hydraulic building and construction materials (indoor, outdoor)	2		not required	-
	14, 22, 26		A) P1 mask (FF, FM) or B) not required	APF = 4 -
	5, 8b, 9		A) P1 mask (FF, FM) or B) not required	APF = 4 -
Industrial uses of wet suspension of hydraulic building and construction materials	7		A) P1 mask (FF, FM) or B) not required	APF = 4 -
	2, 5, 8b, 9, 10, 13, 14		not required	-
Professional use of dry hydraulic building and construction material (indoor, outdoor)	2		not required	-
	9, 26		A) P1 mask (FF, FM) or B) not required	APF = 4 -
	5, 8a, 8b, 14		A) P2 mask (FF, FM) or B) P1 mask (FF, FM)	APF = 10 APF = 4
	19		P1 mask (FF, FM)	APF = 4
Professional uses of wet suspensions of hydraulic building and construction materials	11	A) P1 mask (FF, FM) or B) not required	APF = 4 -	
	2, 5, 8a, 8b, 9, 10, 13, 14, 19	not required	-	

\* PROC's are identified uses and defined in section 16.2.

An overview of the APFs of different RPE (according to EN 529) can be found in the glossary of MEASE (16).

**B) Individual protection measures such as personal protection equipment – flue dust and clinker:** the same as the cement.

**C) Individual protection measures such as personal protection equipment - grinding aid and reducing agent for cement:** Not applicable, because the concentrations of these substances are below the concentration limits set up in the CLP 1272 / 2008 (see point 3).

### 8.2.3. Environmental exposure control

Avoid release to the environment.



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## 9. Physical and chemical properties

### 9.1. Information about the physical and chemical properties:

Appearance	dust
Color:	grey
Odor:	odorless
pH:	10 – 11 (water solution)
Melting point:	No data available
Freezing point:	Not applicable
Interval / Temperature of boiling:	Not applicable
Flash point:	Not applicable
Auto ignition point:	The product is not self-igniting
Decomposition temperature:	No data available
Temperature of inflammability and explosion:	There is no danger of explosion
Lower limit:	-
Upper limit:	-
Relative density:	Not applicable
Bulk density:	1300 kg/m <sup>3</sup>
Solubility:	Insoluble in water, but reaches contact with it.
Mixing with water:	In the form in which it is sold, the product is mixed with water

## 10. Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions of work and storage.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Avoid moisture and accidental access to water.

### 10.5. Incompatible materials

Not known.

### 10.6 Hazardous products of decomposition

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11. Toxicological information

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<b>CEMENT, PORTLAND (65997-15-1)</b>			
<b>HAZARD CLASS</b>	<b>CATE-GORY</b>	<b>EFFECT</b>	<b>REFEREN CE</b>
<b>Acute toxicity - dermal</b>	-	Limit test, rabbit, 24 hours contact, 2,000 mg/kg body weight – no lethality. Based on available data, the classification criteria are not met.	(9)
<b>Acute toxicity inhalation</b>	-	No acute toxicity by inhalation observed. Based on available data, the classification criteria are not met.	(8)
<b>Acute toxicity - oral</b>	-	No indication of oral toxicity from studies with cement kiln dust. Based on available data, the classification criteria are not met.	Literature survey
<b>Skin corrosion/ irritation</b>	2	Cement in contact with wet skin may cause thickening, cracking or fissuring of the skin. Prolonged contact in combination with abrasion may cause severe burns.	(2) Human experience
<b>Serious eye damage/irritation</b>	1	Portland cement clinker caused a mixed picture of corneal effects and the calculated irritation index was 128. Common cements contain varying quantities of Portland cement clinker, fly ash, blast furnace slag, gypsum, natural pozzolans, burnt shale, silica fume and limestone. Direct contact with cement may cause corneal damage by mechanical stress, immediate or delayed irritation or inflammation. Direct contact by larger amounts 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.	(10), (11)
<b>Skin sensitisation</b>	1B	Some individuals may develop eczema upon exposure to wet cement dust, caused either by the high pH which induces irritant contact dermatitis after prolonged contact, or by an immunological reaction to soluble Cr (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. If the cement contains a soluble Cr (VI) reducing agent and as long as the mentioned period of effectiveness of the chromate reduction is not exceeded, a sensitising effect is not expected [Reference (3)].	(3), (4)
<b>Respiratory sensitisation</b>	-	There is no indication of sensitisation of the respiratory system. Based on available data, the classification criteria are not met.	(1)
<b>Germ cell mutagenicity</b>	-	No indication for mutagenicity. Based on available data, the classification criteria are not met.	(12), (13)
<b>Carcinogenicity</b>	-	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 that cause concern that they could be carcinogenic for humans but which cannot be assessed conclusively because of a lack of data. In vitro or animal studies do not provide indications of carcinogenicity that are sufficient to classify the agent with one of the other notations.). Based on available data, the classification criteria are not met	(1), (14)

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<b>Reproductive toxicity</b>	-	Based on available data, the classification criteria are not met.	No evidence from human experience
<b>STOT-(single exposure)</b>	3	Cement dust may irritate the throat and respiratory tract. Coughing, sneezing, and shortness of breath may occur following exposures in excess of 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.	(1)
<b>STOT-repeated exposure</b>	-	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. Based on available data, the classification criteria are not met.	(15)
<b>Aspiration hazard</b>	-	Not applicable as cements are not used as an aerosol.	

**Information on toxicological effects of grinding aid and reducing agent of soluble chromium (Cr VI):**

Not applicable, because the concentrations of these substances (0 – 0,5%) are below the concentration limits set up in the CLP 1272 / 2008.

**11.2 Medical conditions by exposure**

Inhaling cement dust may aggravate existing respiratory system disease(s) and/or medical conditions such as emphysema or asthma and/or existing skin and/or eye conditions.

**12. Ecological information**
**12.1. Toxicity**

The product is not considered harmful to aquatic organisms and does not cause long-term adverse effects to the environment.

**12.2. Persistence and degradability**

Based on the available data on elimination/degradation and bioaccumulation potential, it is unlikely that environmental damage will be expected in the long term. There is no data on the behavior of the material for degradation and elimination.

**12.3. Bioaccumulative potential**

Based on the available data on elimination/degradation and bioaccumulation potential, it is unlikely that environmental damage will be expected in the long term.

**12.4. Mobility in soil**

**Soil:** No additional information available.  
**Water:** No additional information available.  
**Air:** No additional information available.

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### **12.5. Results of PBT and vPvB assessment**

The product does not meet the criteria for PBT (persistent/bioaccumulative /toxic) and vPvB (very persistent /very bioaccumulative).

### **12.6. Other adverse effects**

The product does not contain substances that are listed in Regulation (EC) 1005/2009 for substances that degrade the ozone layer.

## **13. Disposal considerations**

### **13.1. Waste treatment methods**

Remnants of the product are collected and stored at designated locations. Procedures for elimination and destruction must comply with all local, national and international laws and regulations.

An expired product with a proven chromium Cr (VI) content of more than 0.0002% must not be used. It may be used in an automatic and closed process, disposed of or re-treated with a reducing agent.

Do not dispose of with household waste. Do not pour the remainders into the sink or toilet.

Mixed with water or in a hardened state, treated as construction waste or as concrete debris and as such disposed of in accordance with municipal regulations and prescriptions.

Classification of waste according to European legislation: 17.01.01 concrete

### **13.2. Packaging wastes:**

Fully emptied packaging can be handed over for recycling. Contact the manufacturer about recycling.

Classification of waste according to European legislation:

15.01.05 Composite / Multilayer Packaging

## **14. Transport information**

In accordance with ADR/RID/IMDG/IATA/AND

### **14.1 UN Number**

UN Number (ADR)  
 UN Number (IMDG)  
 UN - № (IATA)  
 UN Number (AND)  
 UN Number (RID)

Not applicable  
 Not applicable  
 Not applicable  
 Not applicable  
 Not applicable

### **14.2 UN proper shipping name**

Proper Shipping Name (ADR):

Proper Shipping Name (IMDG):

Proper Shipping Name (IATA):

The product is not regulated for this mode of transport.

The product is not regulated for this mode of transport

The product is not regulated for this mode of transport

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Proper Shipping Name (ADN):

The product is not regulated for this mode of transport

Proper Shipping Name (RID):

The product is not regulated for this mode of transport

#### **14.3 Transport hazard class (es)**

Transport hazard class (es) (ADR)  
 Transport hazard class (es) (IMDG)  
 Transport hazard class (es) (IATA)  
 Transport hazard class (es) (ADN)  
 Transport hazard class (es) (RID)

Not applicable  
 Not applicable  
 Not applicable  
 Not applicable  
 Not applicable

#### **14.4 Packing group (ADR)**

Packing group (ADR)  
 Packing group (IMDG)  
 Packing group (IATA)  
 Packing group (ADN)  
 Packing group (RID)

Not applicable  
 Not applicable  
 Not applicable  
 Not applicable  
 Not applicable

#### **14.5 Environmental hazards**

Dangerous for the environment  
 Marine pollutant  
 Other information

No available  
 No available  
 No available

#### **14.6 Special precautions for users**

Overland transport (ADR)  
 Transport by sea (IMDG)  
 Air transport (IATA)  
 Inland waterway transport (ADN)  
 Rail transport (RID)

Not applicable  
 Not applicable  
 Not applicable  
 Not applicable  
 Not applicable

### **15. Regulatory information**

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

- The product does not contain substances from the REACH Candidate List
- Labeling according to Regulation (EC) No 1272/2008 [CLP]
- Classification according to Regulation (EC) No 1272/2008 [CLP]
- The product does not contain ozone depleting substances according to Regulation (EC) 1005/2009.
- Protection against the harmful impact of chemical substances and preparations act
- Environmental protection act
- Waste management act
- Regulation on the procedure and method of classification, packaging and labeling of chemical substances and mixtures
- Regulation on the order and manner of storage on dangerous chemical substances and mixtures
- Regulation for the prevention of major accidents with hazardous substances and for limiting the



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consequences

- Regulation No 13 on the protection of workers from the risks related to exposure to chemical agents at work

## 15.2. Chemical safety assessment

No chemical safety assessment has been carried out for the product.

## 16. Other Information

Identified uses of the cement quoted in section 8 of this Safety data sheet

PROC Process Category (CP)	Identified uses - use Description	Manufacture/ formulation of	Professional/ industrial use of
		building and construction materials	
2	Use in closed, continuous process with occasional controlled exposure	X	X
3	Use in closed batch process, eg industrial or professional manufacture of ready-mix concrete	X	X
5	Mixing or blending in batch process for formulation of mixtures and articles, eg industrial or professional manufacture of pre-cast concrete	X	X
7	Industrial spraying, eg industrial use of wet suspensions of hydraulic binders by spraying		X
8a	Transfer of substance or mixture from/to vessels/large containers at non-dedicated facilities, eg use of cement in bags to prepare mortar		X
8b	Transfer of substance or mixture from/to vessels/large containers a dedicated facilities, eg filling of silos, trucks or barges at cement plants	X	X
9	Transfer of substance or mixture into small containers, eg filling of cement bags in cement plants	X	X
10	Roller application or brushing, eg products to improve adherence between building surfaces and finishing products		X
11	Non-Industrial spraying, eg professional use of wet suspensions of hydraulic binders by spraying		X
13	Treatment of articles by dipping and pouring, eg covering of construction products with a layer to improve the performance of the product		X
14	Production of mixtures or articles by tableting, compression extrusion, pelletisation, eg production of floor tiling	X	X
19	Hand-mixing with intimate contact and only PPE available, eg mixture of wet hydraulic binder on a construction site		X
22	Potentially closed processing operations with minerals/metals at elevated temperature in industrial		X



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	setting, eg production of bricks		
26	Handling of solid inorganic substances at ambient temperature, eg mixture of wet hydraulic binders	X	X

### 16.1 Full text of H- and EUH-statements:

Acute Tox. 4 (Dermal),	Acute toxicity (dermal), Category 4
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3
Skin Sens. 1	Sensitisation — Skin, Category 1
H312	Harmful in contact with skin
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H335	May cause respiratory irritation
EUH208	Contains cement. May produce an allergic reaction

These phrases do not apply to the product itself, they are for information only and refer to the individual ingredients listed in section 3.

### 16.2. Sources of information

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[http://ec.europa.eu/health/archive/ph\\_risk/committees/sct/documents/out158\\_en.pdf](http://ec.europa.eu/health/archive/ph_risk/committees/sct/documents/out158_en.pdf)

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(10) TNO report V8815/09, Evaluation of eye irritation potential of cement clinker G in vitro using the isolated chicken eye test, April 2010.

(11) TNO report V8815/10, Evaluation of eye irritation potential of cement clinker W in vitro using the isolated chicken eye test, April 2010.

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(14) Comments on a recommendation from the American Conference of governmental industrial Hygienists to change the threshold limit value for Portland cement, Patrick A. Hessel and John F. Gamble, EpiLung Consulting, June 2008.

(15) Prospective monitoring of exposure and lung function among cement workers, Interim report of the study after the data collection of Phase I-II 2006-2010, Hilde Notø, Helge Kjuus, Marit Skogstad and KarlChristian Nordby, National Institute of Occupational Health, Oslo, Norway, March 2010.

(16) MEASE, Metals estimation and assessment of substance exposure, EBRC Consulting GmbH for Eurometaux, <http://www.ebrc.de/industrial-chemicals-reach/projects-and-references/mease.php>.

(17) Occurrence of allergic contact dermatitis caused by chromium in cement. A review of epidemiological investigations, Kåre Lenvik, Helge Kjuus, NIOH, Oslo, December 2011.

The EU SDS (REACH Annex II)

*This information is based on our current knowledge and is intended to describe the product only for health, safety and environmental purposes. Therefore, it should not be construed as a guarantee of the properties of the product.*

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The data in this Safety Data Sheet are based on the current state of our knowledge and satisfy the national legislation and the legislation of the EU. The specific conditions of work of the relevant user, however, are beyond our knowledge and control. The user shall be obligated under his own responsibility to conform to the relevant existing legal norms and provisions. The data in this Safety Data Sheet describe the requirements for security and do not constitute any guarantee for the properties of the product.

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