MATERIEL SAFETY DATA SHEET FOR WHITE PORTLAND CEMENT

JULY 2017

I PRODUCT/COMPANY IDENTIFICATION

1.1 **Product :** White Portland Cement

Use : Concrete – Mortar – Grouts.

1.2 **Manufacturer :**
Société Tuniso-Andalouse de Ciment Blanc (SOTACIB)
Address : Immeuble ALYSSA, Rue Lac Tanganyca 1053 les Berges du Lac Tunis, TUNISIE.
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1.3 Safety data sheet according to
EC number : 91/155/EEC

II CERTIFICATION

1. CE CERTIFICATE NUMBER :
   0099/CPR/A33/0709

III PHYSICAL DESCRIPTION/PROPRIETIES

The clinker, after cooking in approximately 1.450 °C, is composed mainly of silicates and aluminates of calcium and very small quantities of free lime, magnesia, sulfate of sodium, potassium and calcium and other small elements.

These elements are grinded. The cement contains very small quantities of insoluble which can possibly find free silica (C.A.S. 14.808-60-7).

DESIGNATION	Standard notation	MAIN COMPONENTS (weight percentages)								Secondary components	Calcium sulphates: gypsum or anhydrite (usually)
		Portland clinker	Slag	Silica fume	Natural pozzolans	Fly ash		Burnt shale	Limestone		
						siliceous	calcium				
	N° of C.A.S.	65.997-15-1	65.996-69-2		68.131-74-8						10.101-41-4 7.778-18-9
Portland cement	CPA-CEM I	95-100								0-5	
Composed Portland cement	CPJ-CEM II/A	80-94	6-20								
	CPJ-CEM II/B	65-79	21-35								
Blast furnace cement	CHF-CEM III/A	35-64	36-65							0-5	a few
	CHF-CEM III/B	20-34	66-80							0-5	%
	CLK-CEM III/C	5-19	81-95							0-5	additional
Pozzolanic cement	CPZ-CEM IV/A	65-90		10-35						0-5	
	CPZ-CEM IV/B	45-64		36-55						0-5	
Slag cement and ash	CLC-CEM V/A	40-64	18-30		18-30					0-5	
	CLC-CEM V/B	20-39	31-50		31-50					0-5	

IV HAZARD INFORMATION

Portland cement is not considered a dangerous substance according to directive 67/548/EEC, point 4.

HAZARD SYMBOL	MAIN HAZARDS TO HUMANS AND THE ENVIRONMENT
	- Portland cement is a nuisance dust and an irritant to the skin, eyes and mucous membranes. - During the mixing with water (making concrete, mortar or when damp) the cement paste has a high pH and may then irritate the skin upon prolonged contact, and cause eye damage if splashed. - Prolonged contact with skin may cause sensitization due to partial hydration and the resulting of the high pH. - In case of ingestion, the cement may cause burns of the digestive tract. - The cement does not pose particular environmental subject to compliance with the recommendations of Section XIII, concerning the disposal and regulatory requirements applicable national or local.

V EMERGENCY ACTION : FIRST AID MEASURES

Eye contact	- Wash eyes immediately with plenty of clean water and consult an ophthalmologist
Skin contact	- If the cement is dry, remove as much cement dust, then wash the affected area thoroughly with soap and water. - If there is contact with cement mortar, rinse thoroughly with water. - Beware of product that may remain between the skin and clothes, watch, shoes. Clothing contaminated by wet cement should be removed and washed thoroughly.
Inhalation :	In case of inhalation of big quantities of cement dusts: - If irritation occurs, move to fresh air. If nose or airways become inflamed seek medical advice.
Ingestion :	In case of ingestion of cement : - Rinse mouth, drink water and consult a doctor.
Further information:	- Cement is free from chromate

VI MEASURES FOR FIRE FIGHTING

- The cement is not flammable.
- in case of fire, all the types of extinguishing are allowed.

VII MEASURES IN CASE OF ACCIDENTAL RELEASE

Personal precautions:	- Avoid contact with eyes and skin contact. - Avoid breathing dust. - In case of flights of dust, wear a dust mask adapted. - Handle the product with appropriate clothing (gloves - coveralls - Boots.
Environmental Protection:	- Avoid pouring cement in large quantities in sewage and water surfaces.
Methods for cleaning and product recovery:	- Privilege the collection of cement by an appropriate means to avoid flights of dust. - After setting, the cement can be discharged as waste banal building. The cement hardens approximately 60 to 90 minutes after being mixed with water.

VIII PRECAUTIONS OF STORAGE, USE AND HANDLING

Storage	Use	Handling
- Keep out of reach of children.	- Avoid the flight of cement dusts during use. If it can not be avoided, wear a dust mask. - Avoid direct contact of cement with skin and mucous membranes.	- The handling of bulk cement shall be by appropriate means to avoid flights of dust.

IX PROCEDURES FOR CONTROL THE EXPOSURE OF WORKERS AND CHARACTERISTICS OF PERSONAL PROTECTIVE EQUIPMENT

9.1 Control of the exposure :

Limit values for exposure to dust (Article R.232-5-5 of the labor code) :

- Total dust: 10 mg/m3
- Breathing dust: 5 mg/m3

9.2 Individual protection

- ***Respiratory protection***: in the presence of cement dust in the air, using a dust mask is recommended.
- ***Hand protection***: Wear impervious gloves lined with cotton.
- ***Eye protection***: Wear glasses in case of risk of soaring dust, or in case of risk projection powder or paste in the eyes.
- ***Skin protection:*** Wear clothing appropriate to the type of work (Coveralls) and protect the forearm, with the gloves.
- ***kneeling work:*** waterproof sleepers are recommended. Creams "barrier" can be used. Wearing boots (waterproof boots) is recommended.

X PHYSICO-CHEMICAL PROPERTIES

Appearance :	White powder
Smell :	odorless.
pH in aqueous solution :	Basic between 11 and 13.5
Melting temperature :	> 1.000 ° C.
Absolute density :	2.8 at 3.2 g / cm^3 at 20 ° C.
Bulk density :	0.9 at 1.2 g / cm^3 at 20 ° C.
Solubility in water :	until 1.5 g / liter at 20 °C.
Flash Point :	Not applicable
Ignition temperature :	Not applicable
Danger of explosion :	none.
Particle size :	The order of 20-30% fine particles < 5 µm.

XI STABILITY AND REACTIVITY

Stability :	The product is stable
Conditions to avoid:	The humidity can provoke cement taking.
Materials to avoid:	None.
Hazardous Decomposition Products	None.
Note :	The cement is accompanied by has slight rise in temperature.

XII TOXICOLOGICAL INFORMATION

Inhalation :	- The cement can cause respiratory irritation. - The cement can cause inflammation of the nasal mucosa. - In extreme cases, we observed erosion of the mucosa.
Ingestion :	- If swallowed significant, cement is caustic to the digestive tract. - It can cause burns to the mouth, esophagus and stomach.
Contact with skin :	- The cement can irritate moist skin by partial hydration resulting in a high pH. - Prolonged contact with mixed cement can cause skin burns.
Contact with eyes :	- The cement may cause irritation of the eyelids (blepharitis) and cornea (conjunctivitis) and cause damage to eyeballs.

Chronic skin disease :	- Prolonged exposure without specific protection (gloves) can cause an irritant dermatitis. - To the subjects predisposed to allergies, these lesions may precede an allergy in some elements present in trace amounts in cement (hexavalent chromium - cobalt - Etc ...). - Other lesions can also encountered in prolonged contact without protection, it usually appear on the fingers: Dermatitis fissuring - Ulcers - Hyperkeratosis.
Genotoxicity :	Not listed
Carcinogenicity	Not listed

XIII ECOLOGICAL INFORMATION

Mobility :	- None.
Bio-accumulation	- None.
Eco-toxicity :	- In case of spillage in residual waters, the powder of cement pulls a low rise of the pH of the water. - The cement is a stable material which fixes definitively its compounds and makes them insoluble.

XIV INFORMATION ON THE POSSIBILTES OF ELIMINATION OF THE WASTE

After setting, the cement can be disposed with other construction waste and stored in suitable landfill in accordance with existing regulations.

XV TRANSPORT INFORMATION

Not dangerous goods according to transport regulations.

XVI REGULATORY INFORMATION

Hazard Symbol :	- X irritant.
Main constituent :	Portland Clinker and Limestone
R-Phrases	- R 36/37/38: Irritating to eyes, respiratory system and skin. - R41: Risk of serious damage to eyes. - R43: May cause sensitization by skin contact.
S-Phrases	- S2: Keep out of reach of children. - S 24/25: Avoid contact with skin and eyes. - S 26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. - S 36: Wear appropriate clothing. - S 37: Wear suitable gloves. - S 39: Wear eye protection or face.
Occupational diseases	- Code of Social Security: see Table No. 8.
Diseases with professional character	- Code of Social Security: Diseases outside tables.
Special medical supervision:	- Not concerned.