Product Information and Company Identification

Product Name: White Portland cement

Common Name: White Portland cement

Chemical Name: N/A

Manufacture Name: Estahban White Cement

Manufacture Address: Head Office: No. 142, Farhang Shahr Blvd., Shiraz, Iran. Postal Code: 71879-17549
Tel.: +98(71) 36334953-9 Fax: +98(71)36334963

Factory: 20km. Of Estahban - Shiraz Road, Fars Province, Iran. Postal Code: 74518-33448
Telefax: +98 71 53281800

Website: www.estahbancement.com Email: Info@estahbancement.com

COMPOSITION AND INFORMATION ON INGREDIENTS

Product Information:

Product Standard:

EN 197-1:2011; Iran Standard (INSO)No. 2931:2014; UNE 80305:2012

Physical Description and Use:

White Portland cement is a White powder that mainly used in decorative construction. It is supplied typically in 50kg, 40 kg and 25kg bags in large volume is also sold in bulk form to users. (White Portland Cement Also known as Hydraulic White Portland Cement).

Compounds:

Name	CAS	% By Weight	OSHA PEL (8-Hour TWA) (mg/m^3)	ACGIH TLV-TWA (mg/m^3)
Portland Cement	65997-15-1	100	15 (T); 5 (R)	10 (R)
Calcium Sulfate	13397-24-5	3 - 5	15 (T); 5 (R)	10 (T)
Magnesium Oxide	1309-48-4	0 - 3	15 (T)	10 (T)
Calcium Oxide (F. Cao)	1305-78-8	0 - 4	5 (T)	2 (T)
Calcium Carbonate	1317-65-3	0 - 3	15 (T); 5 (R)	10 (T)
Crystalline Silica	14808-60-7	0 - 1.5	[(10) / (%SiO_2+2)] (R); [(30) / (%SiO_2+2)] (T)	0.025 (R)

TWA: Time Weighted Average.
TLV: Threshold Limit Value.
MSHA: Mine Safety and Health Administration.
OSHA: Occupational Safety and Health Administration.
PEL: Permissible Exposure Limit.
CAS: Chemical Abstract Service.

Formula:

This product consists of finely ground Portland cement clinker and calcium sulfate.

Name	CAS	%
3CaO, SiO_2 (C_3S)	12168-85-3	50 - 65
2CaO, SiO_2 (C_2S)	10034-77-2	15 - 25
3CaO, Al_2O_3 (C_3A)	12042-78-3	11 - 13
4CaO, Al_2O_3 Fe_2O_3 (C_4AF)	12068-35-8	1.0 - 1.3
$CaSO_4$, $2H_2O$ (Gypsum)	13397-24-5	3 - 5

Small amounts of MgO, CaO and trace amounts of K2SO4 and Na2SO4 may also be present.

Hazards Identification

Emergency Overview:

Portland white cement is a white powder that poses immediate hazard. A single short-term exposure to the dry powder is not likely to cause serious harm. However, exposure of sufficient duration to wet Portland cement can cause serious, potentially irreversible tissue (skin or eye) destruction in the form of chemical (caustic) burns. The same type of tissue destruction can occur if wet or moist areas of the body are exposed for sufficient duration to dry Portland cement.

POTENTIAL HEALTH EFFECTS:

Relevant Routes of Exposure:

Eye contact, skin contact, inhalation, and ingestion.

Eye Contact: (Acute/Chronic) Exposure to airborne dust may cause immediate or delayed irritation or inflammation of the cornea. Eye contact by larger amounts of dry powder or splashes of wet Portland cement may cause effects ranging from moderate eye irritation to chemical burns and blindness.

Skin Contact: (Acute) Exposure to dry Portland cement may cause drying of the skin with consequent mild irritation or more significant effects attributable to aggravation of other conditions. Discomfort or pain cannot be relied upon to alert a person to a hazardous skin exposure.

(Chronic) Dry Portland cement coming in contact with wet skin or exposure to wet Portland cement may cause more severe skin effects, including thickening, cracking or fissuring of the skin.

Prolonged exposure can cause severe skin damage in the form of chemical (caustic) burns.

(Acute/Chronic) Some individuals may exhibit an allergic response upon exposure to Portland cement.

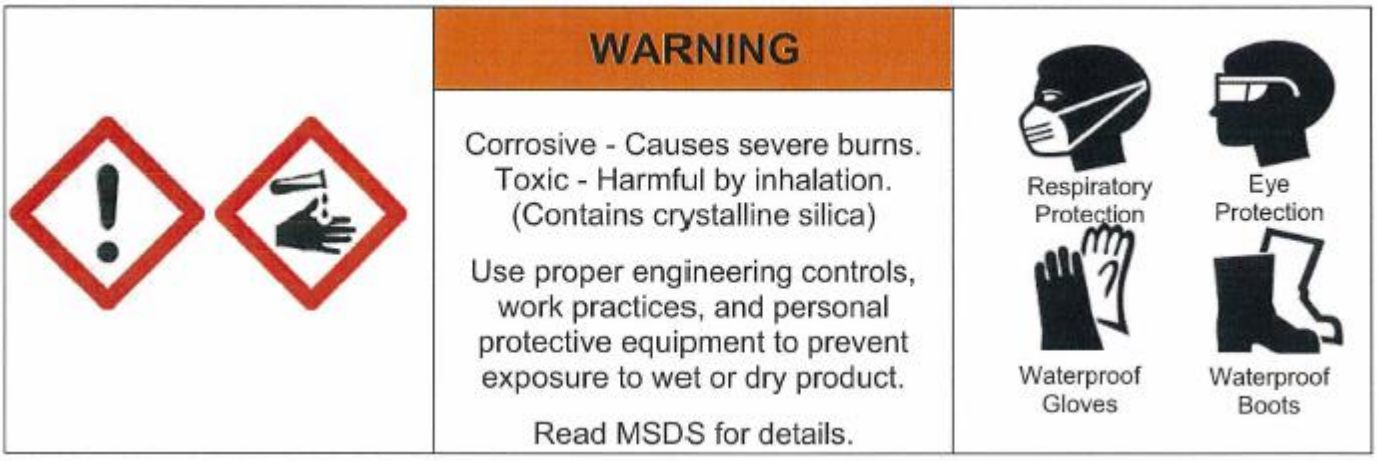
The response may appear in a variety of forms ranging from a mild rash to severe skin ulcers.

Inhalation: (Acute) Exposure to Portland cement may cause irritation to the moist mucous membranes of the nose, throat and upper respiratory system. Pre-existing upper respiratory and lung diseases may be aggravated by inhalation of Portland cement.

(Chronic) Inhalation exposure to free crystalline silica may cause delayed lung injury including silicosis, a disabling and potentially fatal lung disease, and/or cause or aggravate other lung diseases or conditions.

Ingestion: (Acute/Chronic) Internal discomfort or ill effects are possible if large quantities are swallowed.

Carcinogenic Potential: Portland cement is not recognized as a carcinogen by NTP, OSHA, or IARC. However, it may contain trace amounts of heavy metals recognized as carcinogens by these organizations. In addition, IARC classifies crystalline silica, a trace constituent, as a known human carcinogen (Group I). NTP has characterized respirable silica as "reasonably anticipated to be a carcinogen."



First Aid Measures

Emergency Information:
White Portland cement is a light white powder. It has no odor. Inhalation may cause irritation to the moist mucous, membranes of the nose, throat and upper respiratory system.
Inhalation may cause certain lung disease. When in contact with moisture in eyes or on skin, Portland cement becomes highly caustic and will damage or burn the skin or eyes. Use exposure control protection methods which are described in section 8.

Eyes:
Flush immediately eye thoroughly with clean water. Continue flushing eye for at least 15 minutes, including under lids to remove all particles. Consult a physician immediately if irritation persists.

Skin:
Wash affected areas with neutral soap and clean, cool water for at least 15 minutes. For reddened or blistered skin, consult a physician immediately.

Inhalation:
Remove exposed person to fresh air and support breathing as needed. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Consult a physician immediately if irritation persists. Inhalation of large amounts of Portland cement requires immediate medical attention. Consult a physician immediately.

Ingestion:
If the material is ingested, have the conscious person drink plenty of water or milk. Never give anything by mouth to an unconscious or convulsing person. Consult a physician immediately.

Fire and Explosion Data

Flash Point:	None	Lower Explosive Limit:	None
Upper Explosive Limit:	None	Auto Ignition Temperature:	Not Combustible
Extinguishing Media:	Not Combustible	Hazardous Combustion Products:	None
Special Fire-Fighting Procedures:	None	Unusual Fire & Explosion Hazards:	None

Accidental Release Measures

Collect dry material using a scoop. Avoid actions that cause dust to become airborne. Avoid inhalation of dust and contact with skin. Wear appropriate personal protective equipment as described in Section 8. Scrape up wet material and place in an appropriate container. Allow the material to “dry” before disposal. Do not attempt to wash Portland cement down drains. Dispose of waste material according to local regulations.

Handling and Storage

Handling and Storage:
Keep dry until used. Handle and store in a manner so that airborne dust does not exceed applicable exposure limits. Use adequate ventilation and dust collection. Use exposure control and personal protection methods as described in Section 8.

Spill:
Use dry clean-up methods that do not disperse dust into the air or entry into surface water. Material can be used if not contaminated. Place in an appropriate container for disposal or use. Avoid inhalation of dust and contact with skin and eyes. Use exposure control and personal protection methods as described in Section 8.

Exposure Controls/Personal Protection

Respiratory Protection:
Use local exhaust or general dilution ventilation to control dust levels below applicable exposure limits. Minimize dispersal of dust into the air. If local or general ventilation is not adequate to control dust levels below applicable exposure limits or when dust causes irritation or discomfort, use MSHA/NIOSH approved respirators.

Eye Protection:
Wear safety glasses with side shields or goggles to avoid contact with the eyes. In extremely dusty environments and unpredictable environments, wear tight-fitting unvented or indirectly vented goggles to avoid eye irritation or injury. Contact lenses should not be worn when handling cement or cement containing products.

Skin Protection:
Wear impervious abrasion- and alkali-resistant gloves, boots, long-sleeved shirt, long pants or other protective clothing to prevent skin contact. Promptly remove clothing dusty with dry Portland cement or clothing dampened with moisture mixed with Portland cement, and launder before re-use. If contact occurs, wash areas contacted by material with pH neutral soap and water.

Physical and Chemical Properties

Appearance:	White powder	Odor:	No distinct odor
Physical State:	Solid (powder)	PH In Water:	12 to 13
Solubility In Water:	Slightly soluble (0.1 to 1.0%)	Vapor Pressure:	Not applicable
Vapor Density:	Not applicable	Boiling Point:	Not applicable (i.e.> 1000 C)
Melting Point:	Not applicable	Specific Gravity (H2O=1):	2.90 - 3.10
Evaporation Point:	Not applicable		

Stability and Reactivity Data

Stability:
Product is stable. Keep dry until used.
Conditions To Avoid Unintentional contact with water. Contact with water will result in hydration and produces (caustic) calcium hydroxide.

Incompatibility:
Wet Portland cement is alkaline. As such, it is incompatible with acids, ammonium salts and aluminum metal.

Hazardous Decomposition: Will not occur.

Hazardous Polymerization: Will not occur.

Toxicological Information

Toxicological:
(See Section Hazards Identification).

Ecological Information

Ecological:
No recognized unusual toxicity to plants or animals.
Relevant Physical and Chemical Properties.

Disposal Considerations

Dispose of waste material according to local regulations. (Since Portland cement is stable, uncontaminated material may be saved for future use).
Dispose of bags in an approved landfill or incinerator.

Transport Information

White Portland cement are not hazardous under TDG (Transport of Dangerous Goods) regulations.

Other Regulatory Information

OSHA & MSHA Hazard Communica1on Rule 29 CFR 1920.1200:
Portland cement is considered a hazardous chemical" under this regulation, and should be part of any hazard communication program.

Other Information

In white cement Cr6+ concentration should be less than 2 ppm (Cr6+ < 2 ppm).
This material safety data sheet provides information on white Cement products and do not relate to use in combination with any other materials or in any process. The information provided here in is believed by Estahban White Cement Company to be accurate. Health safety precautions in this data sheet may not be enough for all individuals or situations. Users have the responsibility to comply with all laws and procedures applicable to the safe handling and use of the product. It is intended for use by persons having technical skill and at their own discretion and risk.

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ABBREVIATIONS:
DOT: Department of Transportation
HMIS: Hazardous Materials Identification System
IARC: International Agency for Research on Cancer
NIOSH: National Institute for Occupational Safety and Health
NTP: National Toxicity Program
WHMIS: Workplace Hazardous Material Information System

References:

Other Special Considerations: Not available.

Created:

Last Updated: