

SAFETY DATA SHEET

Argos Portland Cement



1. IDENTIFICATION

Product Identifier Portland Cement (cement)

Synonyms: Cement, Portland Cement, Hydraulic Cement, Oil Well Cement, Trinity® White Cement, Antique White Cement, Portland Limestone Cement, * Portland Cement Type I, I/II MH, IA, IL, II, IIA, II L.A., II MH, III, IIIA, IV, IVA, V, VA, 10, 20, 30, 40, 50, GU, GUL, MS, MH, HE, LH, HS, OWH, OWG Cement, OWG Class G HSR, Florida White, Florida Portland Cement Type I/II MH, III and White Portland Type I.

Intended use of the product: Cement is used as a binder in concrete and mortars that are widely used in construction.

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COMPANY CONTACT (business hours): (678)368-4300 (8 AM-4 PM EST)

2. HAZARD IDENTIFICATION

According to OSHA 29 CFR 1910.1200 HCS

Classification of the Substance or Mixture

Classification (GHS-US):

Skin Corrosion/Irritation	Category 1	H314
Skin Sensitization	Category 1	H317
Serious Eye Damage/Eye Irritation	Category 1	H318
STOT SE	Category 3	H335
Carcinogenicity	Category 1A	H350

Labeling Elements



Signal Word (GHS-US) : Danger

Hazard Statements (GHS-US) : H314 - Causes severe skin burns and eye damage.
H318 - Causes serious eye damage.
H317 - May cause an allergic skin reaction.
H335 - May cause respiratory irritation.
H350 - May cause cancer.

Precautionary Statements (GHS-US) :

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Prevention	<p>P201 - Obtain special instructions before use.</p> <p>P202- Do not handle until all safety precautions have been read and understood</p> <p>P260 - Do not breathe dust/fume/gas/mist/vapors/spray.</p> <p>P264- Wash thoroughly after handling.</p> <p>P271- Use only outdoors or in a well-ventilated area.</p> <p>P272- Contaminated work clothing should not be allowed out of the workplace.</p> <p>P280 - Wear protective gloves/protective clothing/eye protection/face protection.</p>
Response	<p>P301+P330+P331- If swallowed: Rinse mouth. Do not induce vomiting.</p> <p>P303+361+353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse with water/shower.</p> <p>P304+P340- If inhaled: Remove person to fresh air and keep comfortable for breathing.</p> <p>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> <p>P308+P313- If exposed or concerned: Get medical attention/advice.</p> <p>P310-Immediately call a poison center or doctor</p> <p>P333+P313- If skin irritation or a rash occurs: Get medical advice/attention.</p> <p>P363- Wash contaminated clothing before reuse.</p>
Storage	P403+P233- Store in a well-ventilated place. Keep container tightly closed
Disposal	P501- Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazards Not Otherwise Classified: None

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Composition Information

Name	Product Identifier (Cas#)	% (w/w)	Classification
Portland cement	65997-15-1	50-98	Skin Irr. 1C (H314) Eye Corr. 1 (H318) Skin Sens. 1 (H317) STOT SE 3 (H335)
Limestone	1317-65-3	0-15	Not Classified
Calcium sulfate dihydrate	13397-24-5	2-10	Not Classified
Calcium oxide	1305-78-8	0-5	Skin Irr. 1C (H314) Eye Irr. 1 (H318) STOT SE 3 (H335)
Magnesium oxide	1309-48-4	0-4	Skin Irr. 3 (H316) Eye Irr. 2 (H320) STOT SE 3 (H335)
Quartz	14808-60-7	<0.2	Carc. 1A (H350) STOT RE 1 (H372)

The exact percentage (concentration) of the composition has been withheld as proprietary.

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4. FIRST AID MEASURES

Route	Measures
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If the individual is not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Inhalation of large amounts of Portland cement requires immediate medical attention. Call a poison center or physician.
Ingestion	Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth with water and afterwards drink plenty of water. Get immediate medical attention.
Eye Contact	In case of contact get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 30 minutes. Chemical burns must be treated promptly by a physician.
Skin Contact	Remove contaminated clothing and shoes. Wash contaminated areas thoroughly with soap and water or waterless hand cleanser. Get medical attention immediately. Heavy exposure to Portland cement dust, wet concrete or associated water requires prompt attention. Burns should be treated as caustic burns. Portland cement causes skin burns with little warning. Discomfort or pain cannot be relied upon to alert a person to a serious injury. You may not feel pain or the severity of the burn until hours after the exposure. Chemical burns must be treated promptly by a physician.
Absorption	As with skin contact, remove contaminated clothing and flush with copious amounts of water. Flush affected area for at least 15 minutes to minimize potential for further absorption. Seek medical attention if significant portions of skin have been exposed.

Most Important Symptoms

May cause skin burns. May cause serious eye damage. May cause allergic skin reaction. Carcinogen; breathing crystalline silica can cause lung disease, including silicosis and lung cancer. Crystalline silica has also been associated with scleroderma and kidney disease. May cause respiratory irritation. May cause burns to mouth, throat and stomach.

Indication of any immediate medical attention and special treatment needed

Note to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Use an extinguishing agent suitable for the surrounding fire.

Specific Hazards / Products of Combustion

No specific fire or explosion hazard.

Special Precautions and Protective Equipment for Firefighters

Move containers from fire area if this can be done without risk. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

See Section 9 for fire properties of this chemical including flash point, autoignition temperature, and explosive limits

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Avoid inhalation of dust from the spilled material. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust at levels exceeding the exposure limits. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. See Section 8 for additional information.

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Environmental Precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if reportable thresholds have entered the environment, including waterways, soil or air. Materials can enter waterways through drainage systems.

Containment and Clean-Up Methods

Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place dust in a closed, labeled waste container. Large spills to waterways may be hazardous due to alkalinity of the product. Dispose of waste material using a licensed waste disposal contractor

7. HANDLING AND STORAGE

Handling Precautions

Avoid contact with eyes, skin, or clothing. This product contains quartz, which may become airborne without a visible cloud. Avoid breathing dust. Avoid creating dusty conditions. Use only with adequate ventilation to keep exposure below recommended exposure limits. Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure by obtaining and following special instructions before use. Do not handle until all safety precautions have been read and understood. Keep in the original container or an approved alternative made from a compatible material and keep the container tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage

Keep container tightly closed in a dry and well-ventilated place. Avoid contact with water and moisture. Keep away from food, drink and animal feeding stuffs. Keep out of the reach of children.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limits

US. ACGIH Threshold Limit Values

Components Type Value Form

Calcium oxide: TWA 2 mg/m³

(CAS#1305-78-8)

Calcium sulfate dehydrate: TWA 10 mg/m³ Inhalable fraction.

(CAS#13397-24-5)

Magnesium oxide: TWA 10 mg/m³ Inhalable fraction.

(CAS#1309-48-4)

Portland cement TWA 1 mg/m³ Respirable fraction.

(CAS#65997-15-1)

Quartz: TWA 0.025 mg/m³ Respirable fraction.

(CAS#14808-60-7)

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components Type Value Form

Calcium oxide: PEL 5 mg/m³

(CAS#1305-78-8)

Calcium sulfate dehydrate: PEL 5 mg/m³ Respirable fraction 15 mg/m³ Total dust.

(CAS#13397-24-5)

Limestone: PEL 5 mg/m³ Respirable fraction 15 mg/m³ Total dust.

(CAS#1317-65-3)

Magnesium oxide: PEL 15 mg/m³ Total particulate.

(CAS#1309-48-4)

Portland cement: PEL 5 mg/m³ Respirable fraction 15 mg/m³ Total dust.

(CAS#65997-15-1)

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US. OSHA Table Z-3 (29 CFR 1910.1000)

Components Type Value Form

Portland cement: TWA 50 mppcf

(CAS#65997-15-1)

Quartz: TWA 0.3 mg/m³ Total dust, 0.1 mg/m³ Respirable, 2.4 mppcf Respirable.

(CAS#14808-60-7)

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components Type Value Form

Calcium oxide: TWA 2 mg/m³

(CAS#1305-78-8)

Calcium sulfate dehydrate: TWA 10 mg/m³

(CAS#13397-24-5)

Limestone: TWA 10 mg/m³

(CAS#1317-65-3)

Magnesium oxide: TWA 10 mg/m³ Fume.

(CAS#1309-48-4)

Portland cement: TWA 10 mg/m³

(CAS#65997-15-1)

Quartz: TWA 0.025 mg/m³ Respirable particles.

(CAS#14808-60-7)

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components Type Value Form

Calcium oxide: TWA 2 mg/m³

(CAS#1305-78-8)

Calcium sulfate dihydrate: STEL 20 mg/m³ Total dust, TWA 10 mg/m³ Inhalable

(CAS#13397-24-5)

Limestone: STEL 20 mg/m³ Total dust, TWA 3 mg/m³ Respirable fraction 10 mg/m³ Total dust.

(CAS#1317-65-3)

Magnesium oxide: STEL 10 mg/m³ Respirable dust and/or fume, TWA 3 mg/m³ Respirable dust and/or fume, 10 mg/m³ Inhalable fume.

(CAS#1309-48-4)

Portland cement: TWA 3 mg/m³ Respirable fraction, 10 mg/m³ Total dust.

(CAS#65997-15-1)

Quartz TWA 0.025 mg/m³ Respirable fraction.

(CAS#14808-60-7)

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components Type Value Form

Calcium oxide: TWA 2 mg/m³

(CAS#1305-78-8)

Calcium sulfate dehydrate: TWA 10 mg/m³ Inhalable fraction.

(CAS#13397-24-5)

Magnesium oxide: TWA 10 mg/m³ Inhalable fraction.

(CAS#1309-48-4)

Portland cement: TWA 10 mg/m³

(CAS#65997-15-1)

Quartz: TWA 0.1 mg/m³ Respirable.

(CAS#14808-60-7)

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

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Components Type Value Form

Calcium oxide: TWA 2 mg/m³
(CAS#1305-78-8)
Calcium sulfate dehydrate: TWA 5 mg/m³ Respirable dust, 10 mg/m³ Total dust.
(CAS#13397-24-5)
Limestone: TWA 10 mg/m³ Total dust.
(CAS#1317-65-3)
Magnesium oxide: TWA 10 mg/m³ Fume.
(CAS#1309-48-4)
Portland cement: TWA 5 mg/m³ Respirable dust, 10 mg/m³ Total dust.
(CAS# 65997-15-1)
Quartz: TWA 0.1 mg/m³ Respirable dust.
(CAS#14808-60-7)

Mexico. Occupational Exposure Limit Values

Components Type Value Form

Calcium oxide: TWA 2 mg/m³
(CAS#1305-78-8)
Calcium sulfate dehydrate: TWA 10 mg/m³
(CAS#13397-24-5)
Limestone: STEL 20 mg/m³
(CAS#1317-65-3)
TWA 10 mg/m³
Magnesium oxide: TWA 10 mg/m³ Fume.
(CAS#1309-48-4)
Portland cement: STEL 20 mg/m³, TWA 10 mg/m³
(CAS#65997-15-1)
Quartz: TWA 0.1 mg/m³
(CAS#14808-60-7)

Engineering Controls

Use only with adequate ventilation. If user operations generate dust, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Personal Protective Equipment

Exposure	Equipment
Eye / Face	To prevent eye contact, wear safety glasses with side shields, safety goggles or face shields when handling dust or wet cement. Wearing contact lenses when working with cement is not recommended.
Skin	Use impervious, waterproof, abrasion and alkali-resistant gloves. Do not rely on barrier creams in place of impervious gloves. Do not get Portland cement inside gloves
Respiratory	Avoid tasks which cause dust to become airborne. Use local or general ventilation to control exposure below applicable exposure limits. Use NIOSH/MSHA approved (30 CFR 11) or NIOSH approved (42 CFR 84) respirators in poorly ventilated areas, or if an applicable exposure limit is exceeded, or when dust causes discomfort or irritation.
General Hygiene considerations	Periodically wash affected areas contacted by dry or wet cement products with a pH neutral soap. When using, do not eat, drink, or smoke. Wash again at the end of work. If clothing becomes saturated with wet cement products, it should be removed and replace with clean dry clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Value	Comments
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Property	Value	Comments
Appearance	Solid Powder Gray or white	
Physical State	Solid	
Odor	Odorless	
Odor Threshold	Not available	
pH	12-13 in water	
Melting / Freeze Point	Not available	
Boiling Point And Range	> 1832 °F (> 1000 °C)	
Flash Point	Not flammable. Not combustible.	
Evaporation Rate	Not available	
Flammability	Not available	
Flammability Limits	Not available	
Vapor Pressure	Not available	
Vapor Density	Not available	
Specific Gravity	3.15	
Solubility	Slightly soluble in water (0.1-1%)	
Partition Coefficient	Not available	
Autoignition Temperature	Not available	
Decomposition Temperature	Not available	
Viscosity	Not available	
Percent Volatiles	Not available	

10. STABILITY AND REACTIVITY

Reactivity

Reacts slowly with water forming hydrated compounds, releasing heat and producing a strong alkaline solution until reaction is substantially complete.

Stability

The product is stable under normal conditions of use, storage and transport.

Reactions / Polymerization

Not expected to occur

Conditions to Avoid

Contact with incompatible materials. Exposure to moisture may affect product quality.

Incompatible Materials

Wet material is alkaline and will react with acids, ammonium salts, aluminum and other reactive metals. Hardened material is attacked by hydrofluoric acid releasing toxic silicon tetrafluoride gas.

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Hazardous Decomposition Products

None expected under normal conditions of use.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity:

Acute Toxicity (Inhalation LC50)

Portland cement (CAS#65997-15-1): >1 mg/L (rat, 4hr)

Calcium oxide (CAS#1305-78-8): > 160 mg/m³ 4 hr (Similar substance)

Calcium sulfate dehydrate (CAS#13397-24-5): LC50 > 3.26 mg/L air (inhalation, dust, 4 h)

Limestone (CAS#1317-65-3): LC50 > 3 mg/L (rat, 4 hr) (Similar substance)

Magnesium oxide (CAS#1309-48-4): No data available.

Quartz (CAS#14808-60-7): No data available.

Acute Toxicity (Oral LC50)

Portland cement (CAS#65997-15-1): No data available.

Calcium oxide (CAS#1305-78-8): LD50 > 2000 mg/kg (rat)

Calcium sulfate dehydrate (CAS#13397-24-5): LD50 > 2000 mg/kg bw (rat)

Limestone (CAS#1317-65-3): LD50 6450 mg/kg (rat) (similar substance)

Magnesium oxide (CAS#1309-48-4): LD50 3870 mg/kg (rat)

Quartz (CAS#14808-60-7): LD50 500 mg/kg (rat)

Acute Toxicity (Dermal LC50)

Portland cement (CAS#65997-15-1): No data available.

Calcium oxide (CAS#1305-78-8): LD50 > 5000 mg/kg (rabbit)(similar substance)

Calcium sulfate dehydrate (CAS#13397-24-5): No data available.

Limestone (CAS#1317-65-3): LD50 > 2000 mg/kg (Similar substance)

Magnesium oxide (CAS#1309-48-4): No data available.

Quartz (CAS#14808-60-7): No data available.

Skin Corrosion/Irritation: May cause skin irritation. May cause serious burns in the presence of moisture

Serious Eye Damage/Irritation: Causes serious eye damage. May cause burns in the presence of moisture.

Respiratory or Skin Sensitization: May cause respiratory tract irritation.

Germ Cell Mutagenicity: No data available.

Carcinogenicity:

Cement may contain trace amounts of respirable crystalline silica and hexavalent chromium which are classified by NTP and IARC as known human carcinogens.

ACGIH Carcinogens

Magnesium oxide (CAS 1309-48-4): A4 Not classifiable as a human carcinogen.

Portland cement (CAS 65997-15-1): A4 Not classifiable as a human carcinogen.

Quartz (CAS 14808-60-7): A2 Suspected human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

Quartz (CAS 14808-60-7): 1 Carcinogenic to humans.

Silica, fume (CAS 69012-64-2): 3 Not classifiable as to carcinogenicity to humans.

US NTP Report on Carcinogens: Known carcinogen

Quartz (CAS 14808-60-7): Known To Be Human Carcinogen.

US OSHA Specifically Regulated Substances: Cancer hazard

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No data available

Teratogenicity: No data available

Specific Target Organ Toxicity (Repeated Exposure): Quartz, Category 1, route of exposure: inhalation , target organs: respiratory tract and organs.

Specific Target Organ Toxicity (Single Exposure): Calcium oxide, Magnesium oxide, Portland cement; Category 3, route of exposure: inhalation and skin contact, target organs: Respiratory tract irritation, skin irritation.

Aspiration Hazard: No data available

Potential Health Effects: Causes serious eye damage. May cause respiratory irritation. Causes severe burns. May cause an allergic skin reaction. Ingestion: May cause burns to mouth, throat and stomach.

Chronic effects: Respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs. Some studies show excess numbers of cases of scleroderma, connective tissue disorders, lupus, rheumatoid arthritis, chronic kidney diseases and end-stage kidney disease in workers exposed to respirable crystalline silica. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled. Danger of serious damage to health by prolonged exposure.

Crystalline silica is considered a hazard by inhalation. IARC has classified crystalline silica as a Group 1 substance, carcinogenic to humans. This classification is based on the findings of laboratory animal studies (inhalation and implantation) and epidemiology studies that were considered sufficient for carcinogenicity. Excessive exposure to crystalline silica can cause silicosis, a non-cancerous lung disease. Portland cement (CAS# 65997-15-1): is not classifiable as a human carcinogen.

Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation. If sensitized to hexavalent chromium, a severe allergic dermal reaction may occur when subsequently exposed to very low levels.

12. ECOLOGICAL INFORMATION

Toxicity:

Data for Portland cement (Mixture):

Aquatic Toxicity- EC50 350 mg/L (Exposure time: 48 h - Species: Daphnia)
Acute

Data for Component: Calcium sulfate dihydrate (CAS#13397-24-5)

Aquatic Toxicity- LC50 > 1970 mg/l (Exposure time: 96h - Species: Fathead minnow (Pimephales promelas))
Acute

Data for Component: Calcium oxide (CAS#1305-78-8)

Aquatic Toxicity-Acute Cyprinus carpio 96 hr LC50 = 1070 mg/L

Aquatic Toxicity- Tilapia nilotica 46 days NOEC = 100 mg/L
Chronic

Data for Component: Quartz (CAS#14808-60-7)

Aquatic Toxicity – Acute Daphnia magna 24 hr LL50 > 10000 mg/L;
Danio rerio 96 hr LL0 = 10000 mg/L
Desmodemus subspicatus 72 hr EC50 > 14 mg/L (similar substance)

Aquatic Toxicity –Chronic- No data available.

Persistence and Degradation: No data available.

Bioaccumulative Potential: No data available.

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Mobility in Soil: No data available.

Other Adverse Effects: No data available.

Other Information: No data available.

13. DISPOSAL CONSIDERATIONS

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.

Untreated waste should not be released to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe manner. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues.

Avoid dispersal of spilled material and runoff, and contact with soil, waterways, drains and sewers.

14. TRANSPORT INFORMATION

US DOT

UN Identification Number	Not regulated
Proper Shipping Name	Not available
Hazard Class and Packing Group	Not available
Shipping Label	Not available
Placard / Bulk Package	Not available
Emergency Response Guidebook Guide Number	Not available

IATA Cargo

UN Identification Number	Not regulated
Shipping Name / Description	Not available
Hazard Class and Packing Group	Not available
ICAO Label	Not available
Packing Instructions Cargo	Not available
Max Quantity Per Package Cargo	Not available

IATA Passenger

UN Identification Number	Not regulated
Shipping Name / Description	Not available
Hazard Class and Packing Group	Not available
ICAO Label	Not available
Packing Instructions Passenger	Not available
Max Quantity Per Package	Not available

IMDG

UN Identification Number	Not regulated
Shipping Name / Description	Not available
Hazard Class and Packing Group	Not available
IMDG Label	Not available
EmS Number	Not available
Marine Pollutant	Not available

15. REGULATORY INFORMATION

OSHA Hazard Communication Standard

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

U.S. Federal, State, and Local Regulatory Information

U.S. Toxic Substances Control Act

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All components are on the U.S. EPA TSCA Inventory List.

United States inventory (TSCA 8b): Portland cements are considered to be statutory mixtures under TSCA.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D: Not regulated

CERCLA: This product is not listed as a CERCLA substance.

SARA Section 313- Supplier Notification

This product does not contain any toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA) of 1986 and of 40 CFR 372.

Clean Air Act Section 112 (b): Hazardous Air Pollutants (HAPs) — Not listed

Clean Air Act Section 602: Class I Substances — Not listed

Clean Air Act Section 602: Class II Substances — Not listed

DEA List I Chemicals: (Precursor Chemicals) — Not listed

DEA List II Chemicals: (Essential Chemicals) — Not listed

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

Immediate (Acute) Health Hazard Yes

Delayed (Chronic) Health Hazard Yes

Fire Hazard No

Reactive Hazard No

Sudden Release of Pressure Hazard No

Pennsylvania Right to Know Hazardous Substance list:

The following product components are cited in the Pennsylvania Special Hazardous Substance List, and are present at levels which require reporting.

Component	CAS
Calcium oxide	CAS#1305-78-8
Calcium sulfate dihydrate	CAS#13397-24-5
Limestone	CAS#1317-65-3
Magnesium oxide	CAS#1309-48-4
Quartz	CAS#14808-60-7

New Jersey Right to Know Hazardous Substance list:

The following product components are cited in the New Jersey Right to Know Hazardous Substance List, and are present at levels which require reporting.

Component	CAS
Calcium oxide	CAS 1305-78-8
Limestone	CAS 1317-65-3
Magnesium oxide	CAS 1309-48-4
Quartz	CAS 14808-60-7

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause Cancer or Reproductive Toxicity.

Component	CAS
Quartz	CAS 14808-60-7

CEPA - Domestic Substances List (DSL)

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

Canadian Regulatory Information (WHMIS)

Class D, Division 2A - Other Toxic Effects-VERY TOXIC

Class E, Corrosive

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16. OTHER INFORMATION

Further information A HMIS® Health rating including an * indicates a chronic hazard

HMIS® ratings

Health: 3*

Flammability: 0

Physical hazard: 1

NFPA ratings

Health: 3

Flammability: 0

Instability: 0

Version

2016.01.20

Issue Date

1/20/2016

Prior Issue Date

05/27/2015

Description of Revisions

Revise to meet Globally Harmonized System for chemical hazard communication requirements pursuant to OSHA regulatory revisions 77 FR 17884, March 26, 2012.

Notice to reader

While the information provided in this safety data sheet is believed to provide a useful summary of the hazards of Portland cement as it is commonly used, the sheet cannot anticipate and provide all of the information that might be needed in every situation. Inexperienced product users should obtain proper training before using this product. In particular, the data furnished in this sheet do not address hazards that may be posed by other materials mixed with Portland cement to produce Portland cement products. Users should review other relevant material safety data sheets before working with this Portland cement or working on Portland cement products, for example, Portland cement concrete.

SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE OR CONCERNING THE ACCURACY OF ANY INFORMATION PROVIDED BY **(Name of Company)**, except that the product shall conform to contracted specifications. The information provided herein was believed by the **(Name of Company)** to be accurate at the time of preparation or prepared from sources believed to be reliable, but it is the responsibility of the user to investigate and understand other pertinent sources of information to comply with all laws and procedures applicable to the safe handling and use of product and to determine the suitability of the product for its intended use. Buyer's exclusive remedy shall be for damages and no claim of any kind, whether as to product delivered or for non-delivery of product, and whether based on contract, breach of warranty, negligence, or otherwise shall be greater in amount than the purchase price of the quantity of product in respect of which damages are claimed. In no event shall Seller be liable for incidental or consequential damages, whether Buyer's claim is based on contract, breach of warranty, negligence or otherwise.

Abbreviations

ACGIH — American Conference of Governmental Industrial Hygienists

CAS# — Chemical Abstract Service

CERCLA — Comprehensive Emergency Response and Comprehensive Liability Act

CFR — Code of Federal Regulations

DOT — Department of Transportation

GHS — Globally Harmonized System

HEPA — High Efficiency Particulate Air

IATA — International Air Transport Association

IARC — International Agency for Research on Cancer

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IMDG — International Maritime Dangerous Goods
NIOSH — National Institute of Occupational Safety and Health
NOEC — No Observed Effect Concentration
NTP — National Toxicology Program
OSHA — Occupational Safety and Health Administration
PEL — Permissible Exposure Limit
REL — Recommended Exposure Limit
RQ — Reportable Quantity
SARA — Superfund Amendments and Reauthorization Act
SDS — Safety Data Sheet
TLV — Threshold Limit Value
TPQ — Threshold Planning Quantity
TSCA — Toxic Substances Control Act
TWA — Time-Weighted Average
UN — United Nations

Disclaimer Statement

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**** End of Safety Data Sheet ****