

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

### 1.1. Product Identifier

**Product Form:** Mixture

**Product Name:** Portland Cements (Types I, II, III, IV, V)

**Formula:** Complex mixture of inorganic minerals including metals and silica

### 1.2. Intended Use of the Product

**Use of the Substance/Mixture:** Construction

### 1.3. Name, Address, and Telephone of the Responsible Party

#### Company

Phoenix Cement Company

8800 E. Chaparral Rd. Suite 155

Scottsdale, AZ 85250-2606

Customer Service: Phone (480)-850-5757 Fax (480) 850-4333

[www.srmaterials.com](http://www.srmaterials.com)

### 1.4. Emergency Telephone Number

**Emergency Number** : 1-800-424-9300 (CHEMTREC) 24-hour

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the Substance or Mixture

#### Classification (GHS-US)

Skin Irrit. 2 H315

Eye Dam. 1 H318

Skin Sens. 1 H317

Carc. 1A (inhalation) H350

STOT SE 3 H335

### 2.2. Label Elements

#### GHS-US Labeling

#### Hazard Pictograms (GHS-US)



#### Signal Word (GHS-US)

: Danger

#### Hazard Statements (GHS-US)

: H315 - Causes skin irritation  
H317 - May cause an allergic skin reaction  
H318 - Causes serious eye damage  
H335 - May cause respiratory irritation  
H350 - May cause cancer (inhalation)

#### Precautionary Statements (GHS-US)

: P201 - Obtain special instructions before use.  
P202 - Do not handle until all safety precautions have been read and understood.  
P261 - Avoid breathing dust.  
P264 - Wash hands, forearms, and exposed areas thoroughly after handling.  
P271 - Use only outdoors or in a well-ventilated area.  
P272 - Contaminated work clothing should not be allowed out of the workplace.  
P280 - Wear eye protection, protective clothing, protective gloves.  
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.  
P304+P340 - IF INHALED: Remove person to fresh air and keep 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.  
P308+P313 - If exposed or concerned: Get medical advice/attention.  
P310 - Immediately call a POISON CENTER or doctor.  
P312 - Call a POISON CENTER or doctor if you feel unwell.  
P321 - Specific treatment (see Section 4).

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P332+P313 - If skin irritation occurs: Get medical advice/attention.  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
P362+P364 - Take off contaminated clothing and wash it before reuse.  
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.  
P501 - Dispose of contents/container according to local, regional, national, and international regulations.

### 2.3. Other Hazards

No additional information available

### 2.4. Unknown Acute Toxicity (GHS-US)

No data available

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product Identifier	%	Classification (GHS-US)
Cement, portland, chemicals	(CAS No) 65997-15-1	90 - 95	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT SE 3, H335
Calcium sulfate	(CAS No) 7778-18-9	3 - 7	Skin Irrit. 2, H315 Eye Dam. 1, H318
Quartz	(CAS No) 14808-60-7	< 0.75	Carc. 1A (inhalation), H350 STOT SE 3, H335 STOT RE 1, H372

Full text of H-phrases: see section 16

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of First Aid Measures

**First-aid Measures General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**First-aid Measures After Inhalation:** If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell.

**First-aid Measures After Skin Contact:** Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Wash contaminated clothing before reuse. Obtain medical attention if irritation develops or persists.

**First-aid Measures After Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 60 minutes. Immediately call a POISON CENTER or doctor/physician.

**First-aid Measures After Ingestion:** Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

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

**Symptoms/Injuries:** Causes serious eye damage. Irritation to eyes, skin and respiratory tract.

**Symptoms/Injuries After Inhalation:** May cause respiratory irritation.

**Symptoms/Injuries After Skin Contact:** Causes skin irritation. May cause an allergic skin reaction.

**Symptoms/Injuries After Eye Contact:** Causes serious eye damage.

**Symptoms/Injuries After Ingestion:** May be harmful if swallowed.

**Chronic Symptoms:** May cause cancer. May cause an allergic skin reaction.

### 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention.

## SECTION 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing Media

**Suitable Extinguishing Media:** Use extinguishing media appropriate for surrounding fire.

**Unsuitable Extinguishing Media:** Do not use a heavy water stream.

### 5.2. Special Hazards Arising From the Substance or Mixture

**Fire Hazard:** Not flammable.

**Explosion Hazard:** Product is not explosive.

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**Reactivity:** Wet portland cement is alkaline. As such it is incompatible with acids, ammonium salts and phosphorus. Adding water produces (caustic) calcium hydroxide.

### 5.3. Advice for Firefighters

**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire.

**Firefighting Instructions:** Do not allow run-off from fire fighting to enter drains or water courses.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

**Other information:** Refer to Section 9 for flammability properties.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

**General Measures:** Do not get in eyes, on skin, or on clothing. Do not breathe dust.

#### 6.1.1. For Non-emergency Personnel

**Protective Equipment:** Use appropriate personal protection equipment (PPE).

**Emergency Procedures:** Evacuate unnecessary personnel.

#### 6.1.2. For Emergency Responders

**Protective Equipment:** Equip cleanup crew with proper protection.

**Emergency Procedures:** Ventilate area.

### 6.2. Environmental Precautions

Prevent entry to sewers and public waters.

### 6.3. Methods and Material for Containment and Cleaning Up

**For Containment:** Solid spill: Collect as any solid. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

**Methods for Cleaning Up:** Clear up spills immediately and dispose of waste safely.

### 6.4. Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for Safe Handling

**Precautions for Safe Handling:** Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work.

### 7.2. Conditions for Safe Storage, Including Any Incompatibilities

**Storage Conditions:** Store in a dry, cool, well-ventilated place. Protect from moisture. Keep container closed when not in use.

**Incompatible Products:** Strong acids. Ammonium salts. Phosphorus.

### 7.3. Specific End Use(s)

Construction.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control Parameters

Cement, portland, chemicals (65997-15-1)		
USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
USA IDLH	US IDLH (mg/m <sup>3</sup> )	5000 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
Quartz (14808-60-7)		
USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup>
USA IDLH	US IDLH (mg/m <sup>3</sup> )	50 mg/m <sup>3</sup>
Calcium sulfate (7778-18-9)		
USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
Calcium oxide (1305-78-8)		
USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>

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<b>USA IDLH</b>	US IDLH (mg/m <sup>3</sup> )	25 mg/m <sup>3</sup>
<b>USA OSHA</b>	OSHA PEL (TWA) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
<b>Magnesium oxide (1309-48-4)</b>		
<b>USA ACGIH</b>	ACGIH TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
<b>USA IDLH</b>	US IDLH (mg/m <sup>3</sup> )	750 mg/m <sup>3</sup>
<b>USA OSHA</b>	OSHA PEL (TWA) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
<b>Nickel (7440-02-0)</b>		
<b>USA ACGIH</b>	ACGIH TWA (mg/m <sup>3</sup> )	1.5 mg/m <sup>3</sup>
<b>USA NIOSH</b>	NIOSH REL (TWA) (mg/m <sup>3</sup> )	0.015 mg/m <sup>3</sup>
<b>USA IDLH</b>	US IDLH (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
<b>USA OSHA</b>	OSHA PEL (TWA) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
<b>Chromium trioxide (1333-82-0)</b>		
<b>USA NIOSH</b>	NIOSH REL (TWA) (mg/m <sup>3</sup> )	0.0002 mg/m <sup>3</sup>
<b>USA IDLH</b>	US IDLH (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
<b>Chromium (7440-47-3)</b>		
<b>USA ACGIH</b>	ACGIH TWA (mg/m <sup>3</sup> )	0.5 mg/m <sup>3</sup>
<b>USA NIOSH</b>	NIOSH REL (TWA) (mg/m <sup>3</sup> )	0.5 mg/m <sup>3</sup>
<b>USA IDLH</b>	US IDLH (mg/m <sup>3</sup> )	250 mg/m <sup>3</sup>
<b>USA OSHA</b>	OSHA PEL (TWA) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>

### 8.2. Exposure Controls

#### Appropriate Engineering Controls

: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas.

#### Personal Protective Equipment

: Safety glasses. Gloves. Protective clothing. Dust formation: dust mask.



#### Hand Protection

: Wear chemically resistant protective gloves.

#### Eye Protection

: Chemical goggles or safety glasses.

#### Skin and Body Protection

: Wear suitable protective clothing.

#### Respiratory Protection

: Use a NIOSH-approved respirator or self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.

#### Other Information

: When using, do not eat, drink or smoke.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on Basic Physical and Chemical Properties

Physical State	: Solid
Appearance	: Gray Powder.
Odor	: No data available
Odor Threshold	: No data available
pH	: No data available
Relative Evaporation Rate (butylacetate=1)	: No data available
Melting Point	: No data available
Freezing Point	: No data available
Boiling Point	: > 1,000 °C (< 1,832 °F)
Flash Point	: No data available
Auto-ignition Temperature	: No data available
Decomposition Temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor Pressure	: No data available
Relative Vapor Density at 20 °C	: No data available

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Relative Density	: 3.15
Specific Gravity	: 3.15
Solubility	: Slightly soluble in water (0.1 – 1 %)
Log Pow	: No data available
Log Kow	: No data available
Viscosity, Kinematic	: No data available
Viscosity, Dynamic	: No data available
Explosive Properties	: No data available
Oxidizing Properties	: No data available
Explosive Limits	: Not applicable

9.2. **Other Information** No additional information available

## SECTION 10: STABILITY AND REACTIVITY

10.1 **Reactivity:** Wet portland cement is alkaline. As such it is incompatible with acids, ammonium salts and phosphorus. Adding water produces (caustic) calcium hydroxide.

10.2 **Chemical Stability:** The product is stable at normal handling and storage conditions.

10.3 **Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.

10.4 **Conditions to Avoid:** Moisture.

10.5 **Incompatible Materials:** Acids. Ammonium salts. Phosphorus.

10.6 **Hazardous Decomposition Products:** None.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information On Toxicological Effects

Acute Toxicity : Not classified

<b>Calcium sulfate (7778-18-9)</b>	
LD50 Oral Rat	> 3000 mg/kg

**Skin Corrosion/Irritation:** Causes skin irritation.

**Serious Eye Damage/Irritation:** Causes serious eye damage.

**Respiratory or Skin Sensitization:** May cause an allergic skin reaction.

**Germ Cell Mutagenicity:** Not classified

**Carcinogenicity:** May cause cancer.

<b>Quartz (14808-60-7)</b>	
IARC group	1
National Toxicity Program (NTP) Status	Known Human Carcinogens.

**Reproductive Toxicity:** Not classified

**Specific Target Organ Toxicity (Single Exposure):** May cause respiratory irritation.

**Specific Target Organ Toxicity (Repeated Exposure):** Not classified

**Aspiration Hazard:** Not classified

**Symptoms/Injuries After Inhalation:** May cause respiratory irritation.

**Symptoms/Injuries After Skin Contact:** Causes skin irritation. May cause an allergic skin reaction.

**Symptoms/Injuries After Eye Contact:** Causes serious eye damage.

**Symptoms/Injuries After Ingestion:** May be harmful if swallowed.

**Chronic Symptoms:** May cause cancer. May cause an allergic skin reaction.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

<b>Calcium sulfate (7778-18-9)</b>	
LC50 Fish 1	2980 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
LC 50 Fish 2	> 1970 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

### 12.2. Persistence and Degradability

<b>Portland Cements (Types I, II, III, IV, V)</b>	
Persistence and Degradability	Not established.

### 12.3. Bioaccumulative Potential

<b>Portland Cements (Types I, II, III, IV, V)</b>	
Bioaccumulative Potential	Not established.

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**12.4. Mobility in Soil** No additional information available

**12.5. Other Adverse Effects**

**Other Information** : Avoid release to the environment.

## SECTION 13: DISPOSAL CONSIDERATIONS

**13.1. Waste treatment methods**

**Waste Disposal Recommendations:** Dispose of waste material in accordance with all local, regional, national, and international regulations.

## SECTION 14: TRANSPORT INFORMATION

In Accordance With ICAO/IATA/IMDG/DOT

**14.1. UN Number** Not regulated for transport

**14.2. UN Proper Shipping Name** Not regulated for transport

**14.3. Additional Information**

**Transport by Sea** Not regulated for transport

**Air Transport** Not regulated for transport

## SECTION 15: REGULATORY INFORMATION

**15.1 US Federal Regulations**

<b>Portland Cements (Types I, II, III, IV, V)</b>	
<b>SARA Section 311/312 Hazard Classes</b>	Immediate (acute) health hazard Delayed (chronic) health hazard
<b>Quartz (14808-60-7)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Cement, portland, chemicals (65997-15-1)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Calcium sulfate (7778-18-9)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

**15.2 US State Regulations**

<b>Quartz (14808-60-7)</b>	
<b>U.S. - California - Proposition 65 - Carcinogens List</b>	WARNING: This product contains chemicals known to the State of California to cause cancer.
<b>Nickel (7440-02-0)</b>	
<b>U.S. - California - Proposition 65 - Carcinogens List</b>	WARNING: This product contains chemicals known to the State of California to cause cancer.
<b>Cement, portland, chemicals (65997-15-1)</b>	
U.S. - Massachusetts - Right To Know List U.S. - Michigan - Occupational Exposure Limits - TWAs U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List	
<b>Quartz (14808-60-7)</b>	
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - New Jersey - Special Health Hazards Substances List U.S. - Pennsylvania - RTK (Right to Know) List	
<b>Calcium sulfate (7778-18-9)</b>	
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List	

## SECTION 16: OTHER INFORMATION

**Revision date** : 06/05/2014

**Other Information** : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

**GHS Full Text Phrases:**

Eye Dam. 1	Serious eye damage/eye irritation Category 1
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Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation
Carc. 1A	Carcinogenicity Category 1A
H350	May cause cancer
STOT RE 1	Specific target organ toxicity (repeated exposure) Category 1
H372	Causes damage to organs through prolonged or repeated exposure

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*

SDS US (GHS HazCom)