

## SECTION 1: IDENTIFICATION

### 1.1. Product Identifier

**Product Form:** Mixture

**Product Name:** Phoenix Natural Pozzolan / ASTM Class N

**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 Irrit. 2A H319

Carc. 1A H350

### 2.2. Label Elements

#### GHS-US Labeling

#### Hazard Pictograms (GHS-US)



#### Signal Word (GHS-US)

: Danger

#### Hazard Statements (GHS-US)

: H315 - Causes skin irritation

H319 - Causes serious eye irritation

H350 - May cause cancer

#### Precautionary Statements (GHS-US)

: P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P264 - Wash hands, forearms, and exposed areas thoroughly after handling.

P280 - Wear eye protection, protective clothing, protective gloves.

P302+P352 - IF ON SKIN: Wash with plenty of soap and water.

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.

P321 - Specific treatment (see Section 4).

P332+P313 - If skin irritation occurs: Get medical advice/attention.

P337+P313 - If eye irritation persists: Get medical advice/attention.

P362 - Take off contaminated clothing and wash before reuse.

P501 - Dispose of contents/container according to local, regional, national, and international regulations.

### 2.3. Other Hazards

**Other Hazards Not Contributing to the Classification:** Smoking increases the risk of bronchitis, silicosis, and lung cancer that is associated with this product. This product may also increase the risk of scleroderma for which the causes are unknown, but some reports link overexposure to silica in combination with other chemicals to this disease.

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

No data available

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### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1. Substance

Not applicable

#### 3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
Calcium oxide	(CAS No) 1305-78-8	4 - 8	Skin Corr. 1C, H314 Eye Dam. 1, H318 STOT SE 3, H335
Sodium oxide (Na <sub>2</sub> O)	(CAS No) 1313-59-3	1.5 - 1.6	Skin Corr. 1C, H314 Eye Dam. 1, H318
Potassium oxide	(CAS No) 12136-45-7	1.2 - 1.3	Skin Corr. 1C, H314 Eye Dam. 1, H318
Sulfur trioxide	(CAS No) 7446-11-9	0.1 - 0.2	Acute Tox. 1 (Inhalation:vapour), H330 Skin Corr. 1A, H314 Eye Dam. 1, H318 Carc. 1A, H350 STOT SE 3, H335

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.

**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. Gently wash with plenty of soap and water followed by rinsing with water for at least 15 minutes. Call a POISON CENTER or doctor/physician if you feel unwell. Wash contaminated clothing before reuse.

**First-aid Measures After Eye Contact:** Do not rub. Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

**First-aid Measures After Ingestion:** Rinse mouth. Do not induce vomiting. Get medical advice and attention.

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

**Symptoms/Injuries:** Irritation to eyes, skin and respiratory tract.

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

**Symptoms/Injuries After Skin Contact:** May cause irritation.

**Symptoms/Injuries After Eye Contact:** May cause eye irritation.

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

**Chronic Symptoms:** If dust is generated, repeated exposure through inhalation may cause cancer or lung disease.

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

If exposed or concerned, get medical advice and attention.

### SECTION 5: FIRE-FIGHTING 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.

**Reactivity:** Wet portland cement is alkaline. As such it is incompatible with acids, ammonium salts and phosphorus.

#### 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.

### 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. Avoid generating dust.

##### 6.1.1. For Non-emergency Personnel

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

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**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:** 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. Avoid generation of dust during clean-up.

### 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

**Additional Hazards When Processed:** Product becomes alkaline when exposed to moisture or water. Exposure can cause chemical burns, or severe irritation of the mucous membranes, skin, eyes, and other exposed areas.

**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. halogens (F, Cl, Br, I). Metals.

### 7.3. Specific End Use(s)

Construction.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control Parameters

Silica, amorphous (7631-86-9)		
USA NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	6 mg/m <sup>3</sup>
USA IDLH	US IDLH (mg/m <sup>3</sup> )	3000 mg/m <sup>3</sup>
Aluminum oxide (1344-28-1)		
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
Iron oxide (Fe2O3) (1309-37-1)		
USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	5 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> )	2500 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>
USA IDLH	US IDLH (mg/m <sup>3</sup> )	25 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
Magnesium oxide (MgO) (1309-48-4)		
USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
USA IDLH	US IDLH (mg/m <sup>3</sup> )	750 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	15 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.

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<b>Skin and Body Protection</b>	: Wear suitable protective clothing.
<b>Respiratory Protection</b>	: Use a NIOSH-approved respirator or self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.
<b>Other Information</b>	: When using, do not eat, drink or smoke.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

<b>Physical State</b>	: Solid
<b>Appearance</b>	: Light to dark gray, tan or charcoal colored powder of varying textures.
<b>Odor</b>	: No distinctive odor.
<b>Odor Threshold</b>	: No data available
<b>pH</b>	: 9 - 11
<b>Relative Evaporation Rate (butylacetate=1)</b>	: No data available
<b>Melting Point</b>	: > 760 °C (> 1,400 °F)
<b>Freezing Point</b>	: No data available
<b>Boiling Point</b>	: > 1093 °C (> 2,000 °F)
<b>Flash Point</b>	: No data available
<b>Auto-ignition Temperature</b>	: No data available
<b>Decomposition Temperature</b>	: No data available
<b>Flammability (solid, gas)</b>	: No data available
<b>Vapor Pressure</b>	: No data available
<b>Relative Vapor Density at 20 °C</b>	: No data available
<b>Relative Density</b>	: 1.8 - 2.7
<b>Solubility</b>	: Water: 0.5 % by weight
<b>Partition coefficient: n-octanol/water</b>	: No data available
<b>Viscosity</b>	: No data available

### 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.
- 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. Avoid creating or spreading dust.
- 10.5 Incompatible Materials:** Strong acids. Metals. Halogens.
- 10.6 Hazardous Decomposition Products:** Adding water produces (caustic) hydroxides of calcium, potassium, and sodium.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information On Toxicological Effects

**Acute Toxicity:** Not classified

<b>Calcium oxide (1305-78-8)</b>	
<b>ATE (Oral)</b>	500.000 mg/kg
<b>Sulfur trioxide (7446-11-9)</b>	
<b>LC50 Inhalation Rat (mg/l)</b>	0.375 mg/l/4h

**Skin Corrosion/Irritation:** Causes skin irritation. (pH: 9 – 11)

**Serious Eye Damage/Irritation:** Causes serious eye irritation. (pH: 9 – 11)

**Respiratory or Skin Sensitization:** Not classified

**Germ Cell Mutagenicity:** Not classified

**Carcinogenicity:** May cause cancer.

<b>Sulfur trioxide (7446-11-9)</b>	
<b>IARC group</b>	1

**Reproductive Toxicity:** Not classified

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

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

**Aspiration Hazard:** Not classified

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

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**Symptoms/Injuries After Skin Contact:** May cause irritation.

**Symptoms/Injuries After Eye Contact:** May cause eye irritation.

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

**Chronic Symptoms:** If dust is generated, repeated exposure through inhalation may cause cancer or lung disease.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

**Calcium oxide (1305-78-8)**

LC50 Fish 1	1070 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [static])
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**12.2. Persistence and Degradability** No additional information available

### 12.3. Bioaccumulative Potential

**Calcium oxide (1305-78-8)**

BCF fish 1	(no bioaccumulation)
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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

**14.1 In Accordance with DOT** Not regulated for transport

**14.2 In Accordance with IMDG** Not regulated for transport

**14.3 In Accordance with IATA** Not regulated for transport

## SECTION 15: REGULATORY INFORMATION

### 15.1 US Federal Regulations

**Phoenix Natural Pozzolan / ASTM Class N**

SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
	Delayed (chronic) health hazard

**Sodium oxide (Na<sub>2</sub>O) (1313-59-3)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

**Calcium oxide (1305-78-8)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

**Sulfur trioxide (7446-11-9)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Listed on SARA Section 302 (Specific toxic chemical listings)

SARA Section 302 Threshold Planning Quantity (TPQ)	100 (This material is a reactive solid. The TPQ does not default to 10000 pounds for non-powder, non-molten, non-solution form)
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**Potassium oxide (12136-45-7)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### 15.2 US State Regulations

**Calcium oxide (1305-78-8)**

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

**Sulfur trioxide (7446-11-9)**

U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1

U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2

U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity

U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1

U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2

U.S. - Massachusetts - Right To Know List

U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances

U.S. - New Jersey - Environmental Hazardous Substances List

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U.S. - New Jersey - Right to Know Hazardous Substance List  
U.S. - New Jersey - Special Health Hazards Substances List  
U.S. - New Jersey - TCPA - Extraordinarily Hazardous Substances (EHS)  
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List  
U.S. - Pennsylvania - RTK (Right to Know) List

### Potassium oxide (12136-45-7)

U.S. - New Jersey - Right to Know Hazardous Substance List  
U.S. - New Jersey - Special Health Hazards Substances List

## SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

**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:

Acute Tox. 1 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 1
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Carc. 1A	Carcinogenicity Category 1A
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Skin Corr. 1A	Skin corrosion/irritation Category 1A
Skin Corr. 1C	Skin corrosion/irritation Category 1C
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H330	Fatal if inhaled
H335	May cause respiratory irritation
H350	May cause cancer
H402	Harmful to aquatic life

*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)