

# Safety Data Sheet- Portland Cement (Type I/II, III, IL)

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Continental Cement Company, L.L.C.  
10107 Hwy 79 South  
Hannibal, MO 63401  
Phone: 573.221.1740  
Fax: 573.221.8487



## Safety Data Sheet For Portland Cement (Type I/II, III, IL)

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### Section 1 – Product and Company Information

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#### 1.1 Product Identifier

Identity: Portland Cement (Type I/II, III), Portland Limestone Cement “PLC” (Type IL)

Synonyms: Portland Cement, Portland Limestone Cement (PLC)

#### 1.2 Identified Use

Use: Acts as a binding agent in concrete and mortar work.

**Manufacturer Name:** Continental Cement

**Transportation Emergency Telephone #'s:**

**Address:** 10107 HWY 79 South

Day Time: 573.221.1740

Hannibal, MO 63401

Night Time: 573.221.1740

**Telephone # for Information:** 573.221.1740

**Website:** [www.continentalcement.com](http://www.continentalcement.com)

Last Updated: 02/01/2021

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### Section 2 – Hazardous Identification

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#### 2.1- Classification of the Substance or Material

GHS-US Classification-(Category)

Acute Toxicity Oral: 4

Acute Toxicity Dermal: 4

Skin Corrosion/Irritation: 1B

Eye Damage: 1

Respiratory Sensitization: 1

Skin Sensitization: Category 1

Carcinogenicity: 1A

Specific Target Organ Toxicity: 3

#### 2.2 Label Requirements

**Symbol(s)**



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**Signal Word: Danger**

**Hazard Statements**

H 302: Harmful if Swallowed

H312: Harmful in Contact With Skin

H314: Causes Severe Skin Burns and Eye Damage

H318: Causes Serious Eye Damage

H335: May Cause Allergy or Asthma Symptoms or Breathing Difficulties if Inhaled

H317: May cause an Allergic Reaction

H350: May Cause Cancer

**Precautionary Statements**

***Prevention Statements***

P201: Obtain special instructions before use

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

P260: Do not breathe dusts

P261: Avoid breathing dust/fume/gas/mist/vapors/sprays

P264: Wash thoroughly after handling

P270: Do not eat, drink, or smoke when using this product

P280: Wear protective gloves, protective clothing, eye protection, face protection

P361: Remove contaminated clothing and wash before reuse

P271: Use outdoors or in a well-ventilated area

P284: In case of inadequate ventilation: Use Respiratory Protection

***Response Statements***

P301 + P330 + P331: If Swallowed: Rinse Mouth. Do NOT induce vomiting. Immediately call a poison center/physician.

P302 + P352: If on Skin: Wash with plenty of soap and water.

P303 + P353 + P361: If on Skin (or Hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. Contact a poison center/physician if needed.

P304 + P340 + P312: If Inhaled: Remove person to fresh air and keep at rest in a position comfortable for breathing.

P305 + P310 + P351 + P338: If in Eyes: Rinses cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing. Immediately call a poison center/doctor.

P308 + P313: If exposed or concerned: get medical advice/attention.

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

P362: Take off contaminated clothing and wash before reuse.

***Storage Statements***

P403 + P233: Store in a well-ventilated place. Store in an appropriate container or containment.

P405: Store locked up.

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## **Disposal Statements**

- Dispose of contents and containers in accordance with local, state, and federal Regulations.

## **2.3 Other Hazards**

Exposure may aggravate pre-existing eye, skin, or respiratory conditions. Individuals with lung disease (e.g. bronchitis, emphysema, COPD, pulmonary disease) or sensitivity to hexavalent chromium can be aggravated by exposure.

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## **Section 3 – Composition/Information on Ingredients**

### **3.2 Mixture**

<b>CAS #</b>	<b>Component</b>	<b>Percent (Range)</b>	<b>GHS Ingredient Classification</b>
65997-15-1	Cement, Portland, Chemicals	90 – 95	Skin Irritant 2, H315 Eye Damage 1, H318 Skin Sensitivity 1, H317 STOT SE 3, H335
13397-24-5	Gypsum (Calcium sulfate)	6 – 8	Not Classified
1317-65-3	Limestone (Calcium carbonate)	0 – 15	Not Classified
14808-60-7	Quartz	0 – 0.1	Carcinogen 1A, H350 STOT SE 3, H335 STOT RE 1, H372

**Other Components:** Cement is made from materials mined from the earth and processed using energy provided by fuels. Additional materials, such as fly ash, kiln dust and slag may also be introduced into the cement manufacturing process. A chemical analysis of cement may reveal trace amounts of naturally occurring but potentially harmful chemical compounds such as free crystalline silica, organic compounds, potassium and sodium compounds, heavy metals including cadmium, chromium (including hexavalent chromium), nickel and lead. Other trace constituents may include calcium oxide (also known as free lime or quick lime) and organic compounds from grinding aids such as amine acetate salts, glycols and 1,2-ethanediol.

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## **Section 4 – First Aid Measures**

### **4.1 First Aid:**

General Advice: Move out of hazardous environment. Seek medical attention as needed. Obtain SDS for informational purposes.

First-aid measures after eye contact: Rinse eyes immediately with water. Continue rinsing for several minutes (15 minutes or greater) to ensure particle removal. Get medical consultation immediately.

First-aid measures after skin contact: Flush skin with water immediately for 15 minutes. Wash skin with mild soap. Remove contaminated clothing. Seek medical attention immediately.

First-aid measures after ingestion: Do not induce vomiting. Contact poison center/physician immediately.

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First-aid measures after inhalation: Remove victim to fresh air. Contact medical personnel immediately.

## **4.2 Important Symptoms or Effects**

Inhalation: Difficulty Breathing, Respiratory Irritation

Skin Contact: Burns, Pain, Blisters

Eye Contact: Burn, Pain, Discomfort, Severe Eye Damage

Ingestion: Nausea, Vomiting

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## **Section 5 – Firefighting Measures**

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**Extinguishing Equipment:** Suitable media to extinguish surrounding environment.

**Hazardous Combustion Products:** None

**Fire Hazard:** Product does not burn.

**Hazardous Decomposition or Byproducts:** None spontaneously.

**Firefighting Instructions:** Wear appropriate firefighting equipment.

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## **Section 6 – Accidental Release Measures**

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**General Measures:** Use personal protective equipment outlined in Section 8.

**Containment:** Stop the spill in a safe manner. Create barricade to contain.

**Clean-Up:** Collect the material and place in approved containers. Ensure that dust generation is down to a minimum due to the hazards of the dust.

**Environmental:** Ensure product is quickly swept up to ensure cement does not go into sewers, ditches, drains or waterways.

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## **Section 7 – Handling and Storage**

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### **Handling Procedures:**

Avoid skin and eye contact with the material or breathing the dust. Wear appropriate personal protective equipment as described in Section 8. Wash thoroughly after exposure to product. Product is an engulfment hazard if stored in large enough container.

### **Storage Procedures:**

Store in a cool, dry environment where only authorized personnel has access to.

### **Precautions to Be Taken for Handling and Storing:**

Protect against physical damage. Store the material in a cool, dry well-ventilated location.

### **Incompatible Materials:**

Water/moisture exposure will cause material to generate heat. Keep away from strong acids and oxidizers.

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## Section 8 – Exposure Control/Personal Protection

### **Control Parameters:**

Exposure Limits for Individual Components

(T=Total Respirable, R=Respirable fraction, I=Inhalable-aerosol)

Component	OSHA PEL	ACGIH TLV	NIOSH REL
Portland Cement	15 mg/m <sup>3</sup> (T); 5 mg/m <sup>3</sup> (R)	1 mg/m <sup>3</sup> (R) <1% Crystalline silica	10 mg/m <sup>3</sup> (T); 5 mg/m <sup>3</sup> (R)
Limestone (Calcium carbonate)	15 mg/m <sup>3</sup> (T); 5 mg/m <sup>3</sup> (R)	10 mg/m <sup>3</sup>	10 mg/m <sup>3</sup> (T); 5 mg/m <sup>3</sup> (R)
Calcium oxide	5 mg/m <sup>3</sup>	2 mg/m <sup>3</sup>	2 mg/m <sup>3</sup>
Silica dioxide (Amorphous)	80 mg/m <sup>3</sup> / (% SiO <sub>2</sub> )	None	6 mg/m <sup>3</sup>
Crystalline Silica (Quartz)	10 mg/m <sup>3</sup> (R) /(% SiO <sub>2</sub> + 2) 30 mg/m <sup>3</sup> (T) /(% SiO <sub>2</sub> + 2)	0.025 mg/m <sup>3</sup> (R)	0.05 mg/m <sup>3</sup> (R)
Gypsum (Calcium Sulfate)	15 mg/m <sup>3</sup> (T); 5 mg/m <sup>3</sup> (R)	10 mg/m <sup>3</sup> (T)	10 mg/m <sup>3</sup> (T); 5 mg/m <sup>3</sup> (R)
Sulfur trioxide	1 mg/m <sup>3</sup> (as H <sub>2</sub> SO <sub>4</sub> )	0.2 mg/m <sup>3</sup> (as H <sub>2</sub> SO <sub>4</sub> )	1 mg/m <sup>3</sup> (as H <sub>2</sub> SO <sub>4</sub> )
Aluminum Oxide	15 mg/m <sup>3</sup> (T) 5 mg/m <sup>3</sup> (R) (as Al)	1 mg/m <sup>3</sup> (R) (as Al metal & insoluble compounds)	Not established
Iron Oxide	10 mg/m <sup>3</sup> (as fume)	5 mg/m <sup>3</sup> (R)	5 mg/m <sup>3</sup> (dust/fume as Fe)
Magnesium oxide	15 mg/m <sup>3</sup>	10 mg/m <sup>3</sup> (I)	Not established
Slags, ferrous metals, blast furnace	15 mg/m <sup>3</sup> (T); 5 mg/m <sup>3</sup> (R)	10 mg/m <sup>3</sup> (T); 3 mg/m <sup>3</sup> (R)	Not established

### **Exposure Controls:**

#### **Engineering:**

Provide exhaust or local ventilation or other engineering controls to keep the airborne concentrations of dust below their respective threshold limit value if needed.

#### **Respiratory Protection (Specify Type):**

Use local/general ventilation if possible. In situations with poor ventilation, use a NIOSH approved respirator or dust mask to protect against the inhalation of dust.

#### **Protective Gloves:**

Suitable gloves with wrist/arm cuffs should be worn to protect avoid direct contact with the skin.

#### **Eye Protection:**

Use chemical safety glasses/goggles and/or a full face shield. Avoid wearing contact lens when using this product.

#### **Other Protective Clothing or Equipment:**

Wear impervious protective clothing, including boots, gloves, and coveralls, as appropriate, to prevent skin contact. Structural firefighter's protective clothing will only provide limited protection.

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## Section 9 – Physical and Chemical Properties

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Physical State: Solid  
Appearance: Solid, grey to white powder  
Upper Flammability: No data available  
Lower Flammability: No data available  
Odor: No observable odor  
Vapor Pressure: No data available  
Vapor Density: No data available  
pH: 12-14 (in water)  
Relative Density: No data available  
Melting Point: No data available  
Freezing Point: No data available  
Solubility: Slight  
Initial Boiling point: >1832 °F (1000 °C )  
Boiling Range: No data available  
Flash Point: No data available  
Evaporation Rate: No data available  
Flammability: Not flammable  
Vapor Pressure: No data available  
Vapor Density: No data available  
Relative Density: No data available  
Solubility: Water: 0.1 - 1 % (slightly soluble)  
Partition Coefficient: No data available  
Auto Ignition Temperature: No data available  
Decomposition Temperature: No data available  
Viscosity: No data available

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## Section 10 – Stability and Reactivity

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### 10.1 Reactivity

Reacts with water to form calcium hydroxide which can irritate or damage skin and eyes. Do not mix with other chemicals.

### 10.2: Stability

Stable under normal dry storage conditions.

### 10.3 Conditions to Avoid

Strong acids, aluminum metal and oxidizers.

### 10.4 Incompatible Materials

None Known

### 10.5 Hazardous Decomposition Products

None Known

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## Section 11 – Toxicological information

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Portland Cement (65997-15-1)

IDLH = 5000 mg/m<sup>3</sup>

Quartz (14808-60-7)

LD50 oral rat = 500 mg/kg

IARC Group = 1

NTP Status = 2

Limestone (1317-65-3)

LD50 oral rat = 6450 mg/kg

Calcium Oxide (CAS 1305-78-8)

Carcinogenicity: Not identified as a known or suspected carcinogen.

Acute Toxicity: No data available

Skin Corrosion/Irritation: Skin-human

Result: severe skin irritation

Serious eye damage/irritation: Eyes-Rabbit

Result: Serious eye damage is possible

Respiratory/Skin sensitization: No data

Germ Cell Mutagenicity: No data

Reproductive Toxicity: No data Available

Specific target organ toxicity-single exposure: Inhalation-Irritation is possible.

Specific target organ toxicity-repeated exposure: No data

Aspiration hazard: No data available

Routes of Exposure: Skin and eye contact, inhalation, and ingestion.

Specific Target Organ Toxicity (single exposure): Respiratory irritation

Skin corrosion/irritation: Severe burns

Eye Damage/Irritation: Serious eye damage

Respiratory/Skin Irritation: Allergic skin reaction, Respiratory tract irritation

Carcinogenicity: Can cause cancer (Quartz)

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## ***Symptoms after contact related to exposure/toxicological characteristics***

Skin Contact: Burns, irritation, blisters, rash, pain and discomfort.

Eye Contact: Burn, eye damage, redness, excessive watering of eye.

Ingestion: Nausea, Vomiting.

Inhalation: Irritation of the respiratory tract.

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## **Section 12 – Ecological Information**

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12.1 Toxicity: No information is available.

12.2 Persistence and Degradability: No data Available

12.3 Bio-accumulative potential: No data available

12.4 Mobility in Soil: No data available

12.5 Other Adverse Effects: No data available

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## **Section 13 – Disposal Considerations**

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13.1 Waste Treatment Methods

Disposal Recommendations: Dispose material in accordance with any applicable local, state, and Federal regulations.

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## **Section 14 – Transportation Information**

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Proper Shipping Name N/A – not regulated.

Hazard Class N/A – not regulated.

UN Shipping ID Number N/A – not regulated.

Packing Group N/A – not regulated.

Environmental/IMDG Codes N/A – not regulated.

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## **Section 15 – Regulatory Information**

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### *15.1 US Federal Regulations*

Cement, Portland, chemicals (65997-15-1): Listed on US TSCA (Toxic Substance Control Act) Inventory.

Limestone (1317-65-3): Listed on US TSCA (Toxic Substance Control Act) Inventory.

Quartz (14808-60-7): Listed on US TSCA (Toxic Substance Control Act) Inventory.

This product contains one or more chemical components or ingredients that may require identification and/or reporting under SARA Section 302, SARA Section 311/312/313, CERCLA and/or TSCA. An examination of the components of this product should be conducted by a



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qualified environmental professional to determine if such identification or reporting is required by federal law.

## *15.2 State Regulations*

State or Local Regulations: Product contains quartz or crystalline silica and trace amounts of other chemicals known to the State of California as causing cancer, birth defects, and/or reproductive harm.

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## **Section 16 – Other information**

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SDS was prepared according to the Hazard Communication Standard (CFR 29 1910.1200).  
Prepared 02/01/2021.

### **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 Globally Harmonized System

IARC — International Agency for Research on Cancer

IMDG — International Maritime Dangerous Goods

NIOSH — National Institute of Occupational Safety and Health

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