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Version 1.0

**Roberts Concrete Products** 

2025 Centre Point Boulevard, Suite 300 Mendota Heights, MN 55120-1221 **Emergency Telephone Number:** 

651-688-9116

**Information Telephone Number** 

651-905-8137

**Revision Date** 

March 2015

#### Section 1: Product Identification

**Product Names:** 

**SAKRETE Portland Cement** 

#### Section 2: Hazard Identification

### Classification of the chemical according to OSHA HAZCOM 2012

Hazard class: Acute toxicity 4 (Oral)

Skin irritation 2

Serious eye damage 1 Skin sensitization 1 Carcinogenicity 1A

Specific target organ toxicity - Single exposure 3

Specific target organ toxicity – After repeated exposure 1

#### **Hazard Pictogram:**







## Signal Word:

Danger

#### **Hazard Statements:**

Harmful if swallowed. Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction. May cause cancer. May cause respiratory irritation. Causes damage to organs through prolonged or repeated exposure.

#### **Prevention:**

Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Use only outdoors or in a well-ventilated area. Do not breathe dust.

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### Response:

If swallowed: Immediately call a poison center/doctor. Rinse mouth. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. If on skin: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention. If exposed or concerned: Get medical advice/attention. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell.

**Storage:** Store locked up. Store in a well-ventilated place. Keep container tightly closed.

**Disposal:** Dispose of contents and container in accordance with all local, regional, national and international regulations.

#### Additional Information:

Hazards not otherwise classified: Not applicable.

60.0 % of the mixture consists of ingredient(s) of unknown acute toxicity.

This product is a hazardous chemical as defined by NOM-018-STPS-2000.

## Section 3: Composition/Information on Ingredients

#### **Mixtures:**

Ingredient	UN#	H/F/R/*	CAS No	Wt. %
Portland cement	Not available.	1/0/0	65997-15-1	60-100
Ferric oxide	UN1376	1/0/0	1309-37-1	10-30
Silica, crystalline, quartz	Not available.	Not available.	14808-60-7	3-7
Calcium oxide	UN1910	3/0/1	1305-78-8	3-7
Gypsum	UN3077	Not available.	13397-24-5	3-7
Calcium carbonate	Not available.	1/0/0	1317-65-3	3-7
Magnesium oxide	UN1418	2/0/0	1309-48-4	3-7

The exact percentage (concentration) of chemicals has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

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<sup>\*</sup> Per NOM-018-STPS-2000



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#### **Section 4: First Aid Measures**

## **Description of the First Aid Measure**

**Eye:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. Get medical attention immediately.

**Skin:** In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.

**Inhalation:** If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

**Ingestion**: If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention.

### Most important symptoms and effects, both acute and delayed:

**Eye**: Causes serious eye damage. May cause burns in the presence of moisture. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

**Skin:** Causes skin irritation. May cause burns in the presence of moisture. Skin contact during hydration may slowly develop sufficient heat that may cause severe burns possibly resulting in permanent injury. Do not allow product to harden around any body part or allow continuous, prolonged contact with skin. Handling can cause dry skin. May cause sensitization by skin contact.

**Inhalation:** May cause respiratory tract irritation.

Ingestion: Harmful if swallowed. May cause stomach distress, nausea or vomiting.

**Indication of Any Immediate Medical Attention and Special Treatments Needed:** 

**Note to Physicians:** Symptoms may not appear immediately.

**Specific Treatments:** In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

#### **Section 5: Fire Fighting Measures**

**Extinguishing Media** 

**Suitable extinguishing media:** Treat for surrounding material.

**Unsuitable extinguishing media:** Not available.

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Special hazards arising from the substance or mixture

**Products of Combustion:** May include, and are not limited to: oxides of carbon. **Special Protective Equipment and Precautions for Fire Fighters:** Keep upwind of fire. Wear full fire-fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

#### **Section 6: Accidental Release Measures**

## Personal Precautions, Protective Equipment and Emergency Procedures

**General Measures:** Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

### **Methods and Materials for Containment and Clean-Up:**

**Methods for Containment:** Contain spill, then place in a suitable container. Do

not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

**Methods for Cleaning-Up:** Vacuum or sweep material and place in a disposal

container.

#### **Section 7: Handling and Storage**

#### **Precautions for Safe Handling**

**Handling:** Avoid contact with skin and eyes. Do not swallow. Good housekeeping is important to prevent accumulation of dust. Avoid generating and breathing dust. The use of compressed air for cleaning clothing, equipment, etc., is not recommended. Handle and open container with care. When using do not eat or drink. Wash hands before eating, drinking, or smoking. (See section 8)

**General Hygiene Advice:** Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

## **Conditions for Safe Storage, Including Any Incompatibilities:**

**Storage:** Keep out of the reach of children. Store in dust-tight, dry, labelled containers. Keep containers closed when not in use. Avoid any dust buildup by frequent cleaning and suitable construction of the storage area. Do not store in an area equipped with emergency water sprinklers. (See section 10)

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## **Section 8: Exposure Controls/Personal Protection**

#### **Control Parameters:**

### **Exposure Guidelines:**

Occupational Exposure Limits		
Ingredient	OSHA-PEL	ACGIH-TLV
Portland cement	15 mg/m³ (total); 5 mg/m³ (resp)	1 mg/m³ (no asbestos and <1% crystalline silica, respirable fraction)
Ferric oxide	10 mg/m³	5 mg/m³ (iron oxide fume; dust as Fe)
Silica, crystalline, quartz	((10 mg/m³)/(%SiO2+2) TWA (resp)); ((30 mg/m³)/(%SiO2+2) TWA (total)); ((250)/(%SiO <sub>2</sub> +5) mppcf TWA (resp))	0.025 mg/m <sup>3</sup>
Calcium oxide	5 mg/m³	2 mg/m³
Gypsum	15 mg/m³ TWA (poussière totale) 5 mg/m³ TWA (fraction respirable	10 mg/m <sup>3</sup>
Calcium carbonate	15 mg/m³ (total); 5 mg/m³ (resp)	10 mg/m <sup>3</sup>
Magnesium oxide	15 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>

#### **Exposure Controls**

**Engineering Controls:** Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

## **Individual Protective Measures**

**Personal Protective Equipment:** 

**Eye/Face Protection:** Wear approved eye (properly fitted dust, or splash-proof chemical safety goggles) / face (face shield) protection.

#### Skin Protection:

**Hand Protection:** Wear suitable waterproof gloves.

**Body Protections:** Wear suitable waterproof protective clothing.

**Respiratory protection:** A NIOSH approved dust mask or filtering face-piece is recommended in poorly ventilated areas or when permissible exposure limits may be exceeded. Respirators should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134) and ANSI's standard for respiratory protection (Z88.2).

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**General Health and Safety Measures:** Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

#### **Section 9: Physical and Chemical Properties**

#### Information on basic physical and chemical properties

Appearance: Powder.

Color:No data available.Odor:No data available.Odor Threshold:No data available.

Physical State: Powder. pH: 12 – 13

**Melting Point/Freezing Point:** No data available. **Initial Boiling Point and Boiling Range:** No data available. **Flash Point:** No data available. **Evaporation Rate:** No data available. Flammability: Not Flammable. **Lower Flammability/Explosive Limit:** No data available. **Upper Flammability/Explosive Limit:** No data available. **Vapor Pressure:** No data available. **Vapor Density:** No data available. **Relative Density/Specific Gravity:** No data available. Solubility: No data available. Partition coefficient: n-octanol/water: No data available. **Auto-ignition Temperature:** No data available. **Decomposition Temperature:** No data available. **Viscosity:** No data available. Percent Volatile, wt. %: No data available.

**VOC content, wt. %:** 0%, Not applicable; 0 wt., Not applicable

## **Section 10: Stability and Reactivity**

Reactivity: No dangerous reaction known under conditions of normal use.

**Chemical Stability**: Stable under normal storage conditions. Keep dry in storage.

**Possibility of hazardous reactions:** No dangerous reaction known under conditions of normal use.

**Conditions to avoid**: Incompatible materials. Moisture.

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Incompatible Materials: None known.

Hazardous decomposition products: May include, and are not limited to: oxides of

carbon.

## **Section 11: Toxicological Information**

## **Information on Toxicological Effects**

**Likely Routes of Exposure**: Skin contact, skin absorption, eye contact, inhalation, and ingestion.

## Symptoms related to physical/chemical/toxicological characteristics:

**Eye:** Causes serious eye damage. May cause burns in the presence of moisture. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

**Skin:** Causes skin irritation. May cause burns in the presence of moisture. Skin contact during hydration may slowly develop sufficient heat that may cause severe burns possibly resulting in permanent injury. Do not allow product to harden around any body part or allow continuous, prolonged contact with skin. Handling can cause dry skin. May cause sensitization by skin contact. Ingestion: Harmful if swallowed. May cause stomach distress, nausea or vomiting.

**Ingestion:** Harmful if swallowed. May cause stomach distress, nausea or vomiting.

**Inhalation:** May cause respiratory tract irritation.

#### Acute toxicity:

Ingredient	IDLH	LC50	LD50
Portland cement	5000 mg/m <sup>3</sup>	Not available.	Not available.
Ferric oxide	2500 mg Fe/m <sup>3</sup>	Not available.	Oral >10000 mg/kg, rat
Silica, crystalline, quartz	Ca [25 mg/m³ (cristobalite, tridymite) 50 mg/m3 (quartz, tripoli)]	Not available.	Oral 500 mg/kg, rat
Calcium oxide	25 mg/m <sup>3</sup>	Not available.	Oral 500 mg/kg, rat
Gypsum	Not available.	Not available.	Not available.
Calcium carbonate	Not available.	Not available.	Not available.
Magnesium oxide	750 mg/m <sup>3</sup>	Not available.	Oral >5000 mg/kg, rat

Calculated overall Chemical Acute Toxicity Values		
LC50 (inhalation) LD50 (oral) LD50 (dermal)		
Not available.	1603.8 mg/kg, rat	Not available.

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Ingredient	Chemical Listed as Carcinogen or Potential Carcinogen (NTP, IARC, OSHA, ACGIH, CP65)*
Portland cement	G-A4
Ferric oxide	G-A4, I-3
Silica, crystalline, quartz	G-A2, I-1, N-1, O, CP65
Calcium oxide	Not listed.
Gypsum	Not listed.
Calcium carbonate	Not listed.
Magnesium oxide	G-A4

Delayed, Immediate, and Chronic Effects of Short- and Long-Term Exposure

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

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

**Respiratory Sensitization:** Based on available data, the classification criteria are not met.

**Skin Sensitization:** May cause an allergic skin reaction. **STOT-Single Exposure:** May cause respiratory irritation.

Chronic Health Effects: Respirable crystalline silica in the form of quartz or cristobalite from occupational sources is listed by the International Agency for Research on Cancer (IARC) and National Toxicology Program (NTP) as a lung carcinogen. Prolonged exposure to respirable crystalline silica has been known to cause silicosis, a lung disease, which may be disabling. While there may be a factor of individual susceptibility to a given exposure to respirable silica dust, the risk of contracting silicosis and the severity of the disease is clearly related to the amount of dust exposure and the length of time (usually years) of exposure.

Carcinogenicity: May cause cancer.

**Germ Cell Mutagenicity:** This product is not classified as a mutagen.

## **Reproductive Toxicity:**

**Developmental:** Based on available data, the classification criteria are not met.

**Fertility:** Based on available data, the classification criteria are not met.

**STOT-Repeated Exposure:** Causes damage to organs through prolonged or repeated exposure.

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**Aspiration Hazard:** Based on available data, the classification criteria are not met.

Toxicologically Synergistic Materials: Not available.

Other Information: Not available.

#### **Section 12: Ecological Information**

### **Ecotoxicity**

**Acute/Chronic Toxicity:** No ecological consideration when used according to directions. Normal dilution of this product to drains, sewers, septic systems and treatment plants is not considered environmentally harmful.

**Persistence and degradability:** No data available.

Bioaccumulation potential: No data available.

**Mobility in soil:** No data available.

Other adverse effects: No data available.

## **Section 13: Disposal Considerations**

#### **Waste Treatment Methods**

**Waste disposal recommendations:** This material must be disposed of in accordance with all local, state, provincial, and federal regulations.

Other disposal recommendations: Not available.

## **Section 14: Transportation**

**UN Number:** 

DOT TDG NOM-004-SCT2-1994

Not regulated. Not regulated. Not regulated.

**UN Proper Shipping Name:** 

DOT TDG NOM-004-SCT2-1994

Not regulated. Not regulated. Not regulated.

**Transport Hazard Class(es):** 

DOT TDG NOM-004-SCT2-1994

Not regulated. Not regulated. Not regulated.

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**Packing Group:** 

DOT TDG NOM-004-SCT2-1994

Not regulated. Not regulated. Not regulated.

**Environmental Hazards:** 

Not available.

Transport in Bulk According to Annex II of Marpol 73/78 and the IBC Code:

Not available.

**Special Precautions for User:**Do not handle until all safety

precautions have been read and

understood.

**Section 15: Regulatory Information** 

## Safety, Health and Environmental Regulations / Legislations Specific for the Chemical

**US:** MSDS prepared pursuant to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

**Mexico:** MSDS prepared pursuant to NOM-018-STPS-2000.

SARA Title III				
Ingredient	Section 302 (EHS) TPQ (lbs.)	Section 304 EHS RQ (lbs.)	CERCLA RQ (lbs.)	Section 313
Portland cement	Not listed.	Not listed.	Not listed.	Not listed.
Ferric oxide	Not listed.	Not listed.	Not listed.	Not listed.
Silica, crystalline, quartz	Not listed.	Not listed.	Not listed.	Not listed.
Calcium oxide	Not listed.	Not listed.	Not listed.	Not listed.
Gypsum	Not listed.	Not listed.	Not listed.	Not listed.
Calcium carbonate	Not listed.	Not listed.	Not listed.	Not listed.
Magnesium oxide	Not listed.	Not listed.	Not listed.	Not listed.

#### **State Regulations**

## **California Proposition 65:**

This product contains Crystalline Silica, Quartz and may also contain trace amounts of other chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

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### **Global Inventories:**

Ingredient	USA TSCA
Portland cement	Yes.
Ferric oxide	Yes.
Silica, crystalline, quartz	Yes.
Calcium oxide	Yes.
Gypsum	No.
Calcium carbonate	Yes.
Magnesium oxide	Yes.

NFPA-National Fire Protection Association:		
Health:	3	
Fire:	1	
Reactivity:	0	

HMIS-Hazardous Materials Identification System:		
Health:	3*	
Fire:	1	
Physical Hazard:	0	

**Hazard Rating:** 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

## **Mexico Classification:**



Blue = Health Red = Flammability Yellow = Reactivity White = Special

Hazard Rating: 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

**Source Agency Carcinogen Classifications:** 

CP65 California Proposition 65

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## OSHA (O) Occupational Safety and Health Administration.

## ACGIH (G) American Conference of Governmental Industrial Hygienists.

- A1 Confirmed human carcinogen.
- A2 Suspected human carcinogen.
- A3 Animal carcinogen.
- A4 Not classifiable as a human carcinogen.
- A5 Not suspected as a human carcinogen

## IARC (I) International Agency for Research on Cancer.

- 1 The agent (mixture) is carcinogenic to humans.
- 2A The agent (mixture) is probably carcinogenic to humans; there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals.
- 2B The agent (mixture) is possibly carcinogenic to humans; there is limited evidence of carcinogenicity in humans in the absence of sufficient evidence of carcinogenicity in experimental animals.
- 3 The agent (mixture, exposure circumstance) is not classifiable as to its carcinogenicity to humans.
- 4 The agent (mixture, exposure circumstance) is probably not carcinogenic to humans.

## NTP (N) National Toxicology Program.

- 1 Known to be carcinogens.
- 2 Reasonably anticipated to be carcinogens.

#### **Section 16: Other Information**

Additional information on the products is available at. www.tccmaterials.com

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