

# MATERIAL SAFETY DATA SHEET

DiamondCRETE, Inc.  
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Product safety: (877) 942-5853

## SECTION I

PRODUCT: DiamondCRETE™ – a mixture of inert sand and blended cement  
CHEMICAL FAMILY:  $3\text{CaO}\cdot\text{SiO}_2$ ,  $2\text{CaO}\cdot\text{SiO}_2$ ,  $4\text{CaO}\cdot\text{Al}_2\text{O}_3$ ,  $3\text{CaO}\cdot\text{Al}_2\text{O}_3$ ,  
 $\text{CaSO}_4\cdot\frac{1}{2}\text{H}_2\text{O}$

## SECTION II

MATERIALS	Wt%	PEL mg/m <sup>3</sup>	TLV mg/m <sup>3</sup>	CAS NUMBER
Calcium sulfate hemihydrate	<30	10	15(t)/5(r)	26499-65-0
Portland cement	>20	10	15(t)/5(r)	65997-15-1
Silica-crystalline	<51	0.1(r)	45(t)/0.1(r)	14808-60-7

(t) – Total (r) – Respirable

## SECTION III PHYSICAL DATA

APPEARANCE AND ODOR: White abrasive powder, low odor  
SOLUBILITY IN WATER: Insoluble  
HARDENING TIME: Varies by usage

## SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED): Noncombustible  
EXTINGUISHING MEDIA: Use extinguishing media appropriate for surrounding fire.  
SPECIAL FIRE FIGHTING PROCEDURES: None  
UNUSUAL FIRE AND EXPLOSION HAZARDS: None

## SECTION V HEALTH HAZARD DATA

This product can release nuisance dust in handling or during use. Eye, skin, nose throat, and upper respiratory irritation can occur with prolonged dust exposure.

### EFFECTS OF OVEREXPOSURE:

#### ACUTE:

**EYES:** Cement is a strongly alkaline material. Contact with eyes will cause irritation and possible corrosion damage.

**SKIN:** When mixed with water, this material hardens and then slowly becomes hot. **DO NOT** attempt to make a cast enclosing any part of the body. Failure to follow these instructions can cause severe burns that may require surgical removal of affected tissue. Direct, prolonged or repeated contact with the skin may cause irritation. Rubbing of this product against the skin can result in abrasions. Rinse with water until free of material to avoid abrasions, then wash skin thoroughly with soap and water. Can cause mechanical irritation to skin, especially in sensitive individuals. May dry skin. If irritation persists, consult physician.

**INHALATION:** Irritating and may be corrosive to respiratory tract. Inhalation of dusts from this product can irritate the nose, throat, lungs, and upper respiratory tract. Persons subjected to large amounts of this dust will be forced to leave area because of nuisance conditions such as coughing, sneezing and nasal irritation from dust. Labored breathing may occur after excessive inhalation. Remove subject to fresh air. If respiratory symptoms persist (irritation, cough, nausea, dizziness, etc.), consult physician.

**INGESTION:** Calcium sulfate hemihydrate is nontoxic, however, ingestion of a sufficient quantity could lead to mechanical obstruction of the gut, especially the pyloric region. Portland cement can be caustic. See Emergency and First Aid – Ingestion below.

#### CHRONIC:

**EYES:** None known.

**SKIN:** None known.

**INHALATION:** Prolonged and repeated exposure to respirable crystalline silica can result in lung disease (i.e., silicosis) and/or lung cancer.

**INGESTION:** No chronic effects known.

### EMERGENCY AND FIRST AID PROCEDURES:

**EYES:** Immediately flush eyes thoroughly with water for 15 minutes, including under lids. Get medical attention immediately.

**SKIN:** Immediately wash skin with copious amounts of water and mild soap. If irritation or pain persists, contact physician. If skin is dry, a commercially available hand lotion may be used to treat dry skin areas. If skin has become cracked, take appropriate action to prevent infection and promote healing.

**INHALATION:** Remove to fresh air. Leave the area of dust exposure and remain away until coughing and other symptoms subside.

SECTION V  
HEALTH HAZARD DATA  
(continued)

INGESTION: This product hardens when wetted and, if ingested, may result in obstruction. Drinking glycerin, gelatin solutions or large volumes of water may delay hardening. Cement is alkaline and may cause burns of the esophagus and stomach. Get medical attention immediately.

TARGET ORGANS: Eyes, Skin, Respiratory System.

MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED: Pre-existing upper respiratory and lung disease such as, but not limited to, bronchitis, emphysema and asthma.

PRIMARY EXPOSURE ROUTES: Inhalation; Ingestion; Eye and/or Skin contact.

CARCINOGENICITY OF INGREDIENTS:

MATERIAL	IARC	NTP	OSHA
Respirable crystalline silica	2A	Anticipated	Not listed

The average concentration of respirable crystalline silica measured in the mixture was less than 0.1 Wt.%. However, respirable crystalline silica in this product has not been determined. Respirable crystalline silica is classified by IARC as a probable human carcinogen (2A). Long-term breathing of silica can cause lung disease and/or possibly lung cancer.

SECTION VI  
REACTIVITY DATA

STABILITY:	Stable
INCOMPATIBILITY:	Non known
HAZARDOUS DECOMPOSITION PRODUCTS:	Above 1450 degrees Celcius – CaO and SO <sub>2</sub>
HAZARDOUS POLYMERIZATION:	Will not occur

SECTION VII  
SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Sweep up material from spillage into a waste container for disposal. Do not flush down drains. If washed down, may plug drains. If already mixed with water, scrape up and place in container. Avoid dusty conditions, minimize airborne dust. Wear appropriate protective equipment.

WASTE DISPOSAL METHOD: This material can be disposed of as inert solid in a landfill or by other procedures which are accepted under federal, state and local regulations. Slurry may plug drains.

SECTION VIII  
SPECIAL PROTECTION INFORMATION

No TLV assigned to this mixture, see Section II. Minimize exposures in accordance with good hygiene practice.

**RESPIRATORY PROTECTION:** Not typically necessary under normal conditions of use. Provide general ventilation and local exhaust ventilation to meet TLV requirements. Avoid creating dust. Wear a NIOSH/MSHA-approved dust respirator in poorly ventilated areas or if TLV is exceeded and/or when dusty conditions exist.

**VENTILATION:** General mechanical or local exhaust to keep exposures below TLV.

**PROTECTIVE EQUIPMENT:** Gloves or protective clothing are usually not necessary but may be desirable in specific work situations. Wear eye protection (safety glasses or goggles) to avoid particulate irritation of the eye.

SECTION IX  
SPECIAL PRECAUTIONS

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:** Keep dry. Dew point conditions or other conditions causing presence of liquid will harden this material during storage. Be sure proper ventilation, respiratory and eye protection are used under dusty conditions.

**WARNING**

When mixed with water, this material hardens and then slowly becomes hot. **DO NOT** attempt to make a cast enclosing any part of the body using this material. Failure to follow these instructions can cause severe burns that may require surgical removal of affected tissue. Avoid creating dust. Dust can cause eye, skin, or respiratory tract irritation. Cement is strongly alkaline and can be corrosive to eyes, skin, and respiratory tract. Avoid eye and skin contact or inhalation of dust. Provide good general ventilation and local exhaust ventilation to reduce dust exposure. If dusty, wear NIOSH/MSHA-approved respiratory protection. Wear eye and skin protection. If eye contact occurs, immediately flush thoroughly with water for 15 minutes and get medical attention. If ingested, call physician. Product safety information (877) 942-5853.

**KEEP OUT OF REACH OF CHILDREN.**