



# Material Safety Data Sheet

## [OSHA 29 CFR 1910.1200]

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### SECTION I: PRODUCT IDENTIFICATION

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Product Types: QUIKRETE® DRY PACKAGED PORTLAND CEMENT BASED PRODUCTS (SERIES 1)

<u>QUIKRETE® Product Name</u>	<u>Code #</u>	<u>QUIKRETE® Product Name</u>	<u>Code #</u>
ALL STAR CONCRETE MIX	1121-60	ALL STAR SAND MIX	1123-60
QUIKRETE® 5000	1007	FAST SETTING CONCRETE	1004

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### SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

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Hazardous Components	CAS No.	PEL (OSHA) mg/M <sup>3</sup>	TLV (ACGIH) mg/M <sup>3</sup>
Silica Sand, crystalline	14808-60-7	<u>10</u> % SiO <sub>2</sub> +2	0.05 (respirable)
Portland Cement	65997-15-1	5	5
Lime	01305-62-0	5	5

May contain one or more of the following:

Amorphous Silica (From Fly Ash )	07631-86-9	<u>80 mg/M<sup>3</sup></u> % SiO <sub>2</sub>	10
Alumina (From Fly Ash)	01344-28-1	5	5
Limestone Dust	01317-65-3	5	5
Calcium Sulfate	10101-41-4 or 13997-24-5	5	5
Calcium Sulfo Aluminate	65997-16-2	15	10

Other Limits: NIOSH has recommended that the permissible exposure limit be changed to 50 micrograms respirable free silica per cubic meter of air (50 ug/M<sup>3</sup>) averaged over a work shift of up to 10 hours per day, 40 hours per week. The NIOSH Criteria Document for Crystalline Silica should be consulted for more detailed information.

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### SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

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**Appearance:** Gray to gray-brown colored powder. Some products contain coarse aggregate. (QUIKRETE Vinyl Concrete Patcher available in white)

<b>Specific Gravity:</b>	2.6 to 3.15	<b>Melting Point:</b>	>2700 °F	<b>Boiling Point:</b>	>2700 °F
<b>Vapor Pressure:</b>	None	<b>Vapor Density:</b>	None	<b>Evaporation Rate:</b>	None
<b>Solubility in Water:</b>	Slight	<b>Odor:</b>	None	<b>Solubility in Water:</b>	Slight

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**SECTION IV - FIRE AND EXPLOSION HAZARD DATA**


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Non combustible and not explosive.

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**SECTION V - REACTIVITY DATA**


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**Stability:** Stable.

**Incompatibility (Materials to Avoid):** Contact of silica with powerful oxidizing agents such as fluorine, chlorine trifluoride, manganese trioxide, oxygen difluoride, may cause fires.

**Hazardous Decomposition or Byproducts:** Silica will dissolve in Hydrofluoric Acid and produce a corrosive gas - silicon tetrafluoride.

**Hazardous Polymerization:** Will not occur.

**Condition to Avoid:** Keep dry until used to preserve product utility.

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**SECTION VI - HEALTH HAZARD DATA**


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**Route(s) of Entry:**

Inhalation?	Yes
Skin?	Yes
Ingestion?	Yes

**Acute Exposure:** Product becomes alkaline when exposed to moisture. Exposure can dry the skin, cause alkali burns and effect the mucous membranes. Dust can irritate the eyes and upper respiratory system. Toxic effects noted in animals include, for acute exposures, alveolar damage with pulmonary edema.

**Chronic Exposure:** Dust can cause inflammation of the lining tissue of the interior of the nose and inflammation of the cornea. Hypersensitive individuals may develop an allergic dermatitis. Respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs and possibly cancer. There is evidence that exposure to respirable silica or the disease silicosis is associated with an increased incidence of Scleroderma, tuberculosis and kidney disorders.

**Carcinogenicity Listings:**

NTP:	Known carcinogen
OSHA:	Not listed as a carcinogen
IARC Monographs:	Group 1 Carcinogen
California Proposition 65:	Known carcinogen

**NTP:** The National Toxicology Program, in its "Ninth Report on Carcinogens" (released May 15, 2000) concluded that "Respirable crystalline silica (RCS), primarily quartz dusts occurring in industrial and occupational settings, is *known to be a human carcinogen*, based on sufficient evidence of carcinogenicity from studies in humans indicating a causal relationship between exposure to RCS and increased lung cancer rates in workers exposed to crystalline silica dust (reviewed in IAC, 1997; Brown *et al.*, 1997; Hind *et al.*, 1997)

**IARC:** The International Agency for Research on Cancer ("IARC") concluded that there was "*sufficient evidence* in humans for the carcinogenicity of crystalline silica in the forms of quartz or cristobalite from occupational sources", and that there is "*sufficient evidence* in experimental animals for the carcinogenicity of quartz or cristobalite." The overall IARC evaluation was that "crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is *carcinogenic to humans* (Group 1)." The IARC evaluation noted that "carcinogenicity was not detected in all industrial circumstances or studies. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." For further information on the IARC evaluation, see IARC Monographs on the Evaluation of carcinogenic Risks to Humans, Volume 68, "Silica, Some Silicates..." (1997)

**Signs and Symptoms of Exposure:** Symptoms of excessive exposure to the dust include shortness of breath and reduced pulmonary function. Excessive exposure to skin and eyes especially when mixed with water can cause caustic burns as severe as third degree.

**Medical Conditions Generally Aggravated by Exposure:** Individuals with sensitive skin and with pulmonary and/or respiratory disease, including, but not limited to, asthma and bronchitis, or subject to eye irritation, should be precluded from exposure.

**Emergency First Aid Procedures:** Irrigate (flood) eyes immediately and repeatedly with clean water. Wash exposed skin areas with soap and water. If irritation or inflammation occurs seek prompt medical attention. For gross inhalation, remove person immediately to fresh air, give artificial respiration as needed. Get prompt medical attention.

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### SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

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**Spills:** If spilled, use dustless methods (vacuum) and place into closable container for disposal or use if not contaminated or wet. Use adequate ventilation.

**Waste Disposal Method:** The packaging and material may be land filled; however, material should be covered to minimize generation of airborne dust. This product is not classified as a hazardous waste under RCRA or CERCLA.

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### SECTION VIII - CONTROL MEASURES

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**Inhalation:** DO NOT BREATHE DUST. In dusty environments, the use of an OSHA, MSHA or NIOSH approved respirator is recommended. Local exhaust can be used, if necessary, to control airborne dust levels.

**Eyes:** Wear tight fitting goggles.

**Skin:** The use of barrier creams or impervious gloves, boots and clothing to protect the skin from contact is recommended. Following work, workers should shower with soap and water. Precautions must be observed because burns occur with little warning -- little heat is sensed.

WARN EMPLOYEES AND/OR CUSTOMERS OF THE HAZARDS AND REQUIRED OSHA PRECAUTIONS ASSOCIATED WITH THE USE OF THIS PRODUCT.

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NOTE: The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, express or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to silica contained in our products.