



P.O. Box 5675 Riverside, CA 92517

Southern California's leading manufacturer of specialty sand and rock products.

Safety Data Sheet

GRANITE

Section 1- Chemical Products and Company Identification

Product Name:	Granite
Other means of Identification:	Aggregate, Manufactured Sand, natural stone, crushed stone
Relevant identified uses of the substance or mixture and uses advised against:	Granite aggregate may be used in the manufacture of bricks, mortar, cement, concrete, plaster, paving materials, and other construction materials. Granite aggregate may be distributed in bags, totes, and bulk shipments. No known recommended restrictions.

Section 2- Product and Component Data

CAS #	Component	Percent
None	Granite	> 99
14808-60-7	Crystalline Silica (Quartz)	> 1

Any concentration shown as a range is to protect confidentiality or is due to process variation. There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section. These materials are mined from the earth. Trace amounts of naturally occurring elements might be detected during chemical analysis of these materials.

Section 3- Physical Data

Appearance and Odor: Angular particles, light salt-and-pepper Ranging in size from pebbles to boulders.
No odor

Boiling Point (At 1 Atm): Not applicable

Vapor Pressure (mm Hg@20°C): Not applicable

Evaporation rate: @1 ATM & 25°C; n-butyl acetate = 1

Specific Gravity: 2.6-2.81

Material Name: Granite

Vapor Density in Air (Air = 1): Not applicable

% Volatile, by Volume @ 100°F: 0%

*****Section 4- Reactivity Data*****

Stability: Stable

Conditions to Avoid: Avoid contact with incompatible materials.

Incompatibility (Materials to avoid): Contact with powerful oxidizing agents such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, and oxygen difluoride may cause fire and/or explosions. Silica dissolves readily in hydrofluoric acid producing a corrosive gas-silicon tetra fluoride.

Hazardous Decomposition Products: handling may generate silica-containing respirable dust particles.

Hazardous Polymerization: Not known to polymerize.

*****Section 5- Fire and Explosion Data*****

Flashpoint (Method used):

Not flammable.

Flammable Limits in Air

Not Flammable.

Extinguishing Agents

None required.

Unusual Fire and Explosion Hazards

Contact with powerful oxidizing agents may cause fire and/or explosions.

*****Section 6- Toxicity and First Aid*****

Exposure Limits (when exposure to this products and other chemicals is concurrent, the exposure limit must be defined in the workplace).

Unless specified otherwise, limits are expressed as eight-hour time-weighted averages (TWA) Limits for cristobalite and tridymite (other forms of crystalline silica) are equal to one-half of the limits for quartz.

Abbreviations:

TLV=threshold limit value of the American Conference of Governmental Hygienists (ACHIH)
MSHA PEL = permissible exposure limits of the Occupational Safety and Health Administration (OSHA); mg/m³ (respirable particulate not otherwise regulated).

Respirable Crystalline Silica (quartz): TLV = 0.5 mg/m: MSHA and OSHA PEL = 10mg/m³ ÷ (%SiO₂);
MSHA Proposed and OSHA Proposed PEL = 0.1 mg/m³

Respirable Dust: MSHA and OSHA PEL = 10mg/m³ ÷ (%SiO₂)

Total Dust: MSHA PEL = 30 mg/m³ ÷ (%SiO₂); OSHA PEL = 30 mg/m³ ÷ (%SiO₂)

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ACGIH, MSHA, and OSHA have determined that adverse effects are not likely to occur in the workplace provided exposure levels do not exceed the appropriate TLVs/PELs. However, because of the wide variation in individual susceptibility, lower exposure limits may be appropriate for some individuals including persons with pre-existing medical conditions such as those described below.

Medical Conditions Aggravated by Exposure: Inhaling respirable dust may aggravate existing respiratory system disease(s) and/or dysfunctions. Exposure to dust may aggravate existing skin and/or eye conditions.

Primary Route(s) of Exposure: Inhalation

Eye Contact: Direct contact with dust may cause irritation by mechanical abrasion.

Skin Absorption: Not expected to be significant exposure route.

Ingestion: Expected to be practically non-toxic. Ingestion of large amounts may cause gastrointestinal irritation and blockage.

Inhalation: Dusts may irritate the nose, throat, and respiratory tract by mechanical abrasion. Coughing, sneezing, and shortness of breath may occur following exposures in excess of appropriate exposure limits.

Use of granite for construction purpose is not believed to cause additional acute toxic effects. However, repeated overexposure to very high levels of respirable crystalline silica (quartz, cristobalite, tridymite) for periods as short as six months have acute silicosis. Acute silicosis is a rapidly progressive, incurable lung disease that is typically fatal. Symptoms include, but not limited to shortness of breath, cough, fever, weight loss, and chest pain.

Section 7- First Aid

Eyes: Immediate flush eye(s) with plenty of clean water for at least 15 minutes, while holding eyelid(s) to ensure thorough rinsing. Beyond flushing, do not attempt to remove material from the eye(s). Contact a physician if irritation persists or later develops.

Ingestion: If person is conscious, give large quantity of water and induce vomiting; however, never attempt to make an unconscious person drink or vomit.

Chronic toxicity: Prolonged and repeated inhalation or respirable crystalline silica containing dust in excess of appropriate exposure limits has caused silicosis, a lung disease. Not all individuals with silicosis will exhibit symptoms (signs) of the disease. However, silicosis can be progressive, and symptoms of silicosis may include, but are not limited to, the following; shortness of breath; difficulty breathing with or without exertion; coughing; diminished work capacity; diminished chest expansion; reduction of lung volume; right heart enlargement and/or failure. Smoking may increase the risk of developing lung disorders, including emphysema and lung cancer. Persons with silicosis have an increased risk of tuberculosis infection.

Respirable dust containing newly broken silica particles has been to be hazardous to animals in laboratory tests that respirable dust containing older silica particles of similar size. Respirable silica particles, which had aged for sixty days or more showed less lung injury in animals than equal exposure of respirable dust containing newly broken particles of silica.

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There are reports in the literature suggesting that excessive crystalline silica exposure may be associated with adverse health effect involving the kidney, scleroderma (thickening of the skin caused by swelling and the thickening of fibrous tissue) other autoimmune disorders. However, this evidence has been obtained primarily from case reports involving individuals working in high exposure situations or those who have already developed silicosis; and therefore, this evidence does not conclusively prove a casual relationship between silica or silicosis and these adverse health effects. Several studies or people with silicosis also indicated an increased risk of developing lung cancer, a risk that increases with the duration of exposure. Many of these studies do not account for lung cancer confounders, especially smoking.

Granite is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA). In October 1996, IARC Working Group re-assessing crystalline silica, a component of this product, designed respirable crystalline silica as carcinogenic (group1). The NTP's Report of Carcinogens, 9th edition, lists respirable crystalline silica as a "known human carcinogen." In year 2000, the American Conference of Governmental Industrial Hygienists (ACGIH) listed respirable crystalline Silica (quartz) as a suspected human carcinogen (A-2). These classifications are based on sufficient evidence of carcinogenicity in certain experimental animals and on selected Epidemiological studies of workers exposed to crystalline silica.

California Proposition 65

WARNING: This product contains chemical(s) known to the State of California to cause cancer.

*****Section 8- Personal Protection and Controls*****

Respiratory Protection- For respirable quartz levels that exceed or are likely to Exceed an 8 hr TWA of 0.1 mg/m³, a NIOSH approved dust respirator must be worn. For respirable quartz levels that exceed or are likely to exceed 8hr-TWA of 0.5 mg/m³, a NIOSH approved HEPA filter respirator must be worn. If respirable quartz levels exceed or are likely to exceed an 8hr TWA of 5 mg/m³, a NIOSH approved positive pressure, full-face respirator or equivalent is required. Respirator use must comply with applicable MSHA or OSHA standards, which include provisions for a user training program, respirator repair and cleaning, respirator for testing and other requirements.

Ventilation: Local exhaust or general ventilation adequate to maintain exposure below appropriate exposure limits.

Skin Protection: See "Hygiene" section below.

Eye Protection: Safety glasses with side shields should be worn as minimum protection. Dust goggles should be worn when excessively (visible) dusty conditions are present or are anticipated.

Hygiene: Wash dust-exposed skin with soap and water before eating, drinking, smoking, and using toilet facilities. Wash work clothes after each use.

Other Control Measures: Respirable dust and quartz levels in excess of appropriate exposure limits should be reduced by all feasible engineering controls, including (but not limited to) wet suppression, ventilation. Process enclosure and enclosed employee work stations.

*****Section 9- Storage and Handling Precautions*****

Respirable crystalline silica-containing dust may be generated during processing, handling and storage. The personal protection and controls identified in Personal Protection and Controls section of the MSDS should be used as appropriate. Do not store near food and beverages or smoking materials.

Spill, leak and Disposal Practices:

Steps to be taken in case materials is released or spilled- The personal protection and controls identified in Personal Protection and Controls section of the MSDS should be used as appropriate. Spilled materials, where dust can be generated, may overexpose cleanup personnel to respirable crystalline silica-containing dust. Wetting of spilled material and/or use of respiratory protective equipment may be necessary. Do not dry sweep-spilled material.

Prevent spilled materials from inadvertently entering streams, drains, or sewers.

Waste Disposal Method- Disposal of waste materials only in accordance with applicable federal, state, and local laws and regulations.

Transportation

DOT Hazard Classification-None

Placard Required- None

Label Required-Label as required by the OSHA Hazards Communication Standard [29CFR 1901.1200(f) and applicable state and local laws and regulations.

No warranty is made, express or implied, or merchantability, fitness for Particular purpose or otherwise.