

MATERIAL SAFETY DATA SHEET

EBI

Materials Company

Effective Date: 08-26-08

Construction Aggregates

SECTION 1. MATERIAL IDENTIFICATION

Chemical Name: Not Applicable	Chemical Formula: Mixture	Molecular Weight: Not Applicable
Trade Name(s): Construction Aggregates		
Synonyms/Common Names: Crushed Stone, Sand, and Gravel	Department of Transportation Identification Number: None	
Manufacturer/Contact Info: EBI Aggregates 7589 National Drive Livermore, CA 94550-9713	General Phone Number: 925.443.0225 (7-4 PST, M-F)	
	Emergency Phone Number: 800.451.8346 (3E Company, 24 hours/day, 7 days/week)	

SECTION 2. PRODUCT AND COMPONENT DATA

Component(s) Chemical Name	CAS Number	Percent by Wt	OSHA PEL	ACGIH TLV
Mineral Aggregates (Crushed stone, sand, and gravel)	Mixture	100	See Section 10	See Section 10
Silica, crystalline - Quartz (content typically greater than 1 percent and can be higher than 20 percent)	14808-60-7	Varies	See Section 10	See Section 10
Other possible forms of crystalline silica				
Cristobalite	14464-46-1	Varies	See Section 10	See Section 10
Tridymite	15468-32-3	Varies	See Section 10	See Section 10

(ACGIH-American Conference of Governmental Industrial Hygienists, CAS-Chemical Abstract Service, OSHA-Occupational Safety and Health Administration, PEL-Permissible Exposure Limit, TLV-Threshold Limit Value, Wt-Weight)

SECTION 3. PHYSICAL DATA

Appearance and Odor: Angular particles, light/salt and pepper colored, ranging in size from pebbles to boulders. No odor.	Solubility in Water: Negligible
Boiling Point: Not Applicable	Specific Gravity (H₂O = 1 @ 39.2 F): 2.4-2.8
Vapor Pressure (mm Hg): Not Applicable	Melting Point: Not Established
Vapor Density in Air (Air = 1): Not Applicable	Evaporation Rate (Butyl Acetate = 1): Not Applicable

SECTION 4. PHYSICAL HAZARDS (FIRE AND EXPLOSION HAZARD DATA)

Flashpoint (method used): Not flammable or combustible.	Flammable Limits in Air (percent Vol. in Air): Not flammable or combustible.
Lower Explosive Limit: Not Applicable	Upper Explosive Limit: Not Applicable
Extinguishing Agents: None required.	
Unusual Fire and Explosion Hazards: Contact with powerful oxidizing agents may cause fire and/or explosion.	

SECTION 5. REACTIVITY DATA

Stability: Unstable: No Stable: Yes	Conditions to Avoid: Avoid contact with incompatible materials.
Incompatibility (Materials to Avoid): Silica reacts violently with powerful oxidizing agents such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, oxygen difluoride, and hydrogen peroxide yielding possible fire and/or explosions. Silica is also incompatible with acetylene and ammonia. Silica dissolves readily in hydrofluoric acid producing a corrosive gas-silicon tetrafluoride.	
Hazardous Decomposition Products: Silica-containing respirable dust particles may be generated if hardened product is subjected to mechanical forces such as in demolition work and surface modification (sanding, grooving, chiseling, etc.).	
Hazardous Polymerization: Will not occur.	Conditions to Avoid: Not Applicable.

SECTION 6. TOXICITY AND FIRST AID

HEALTH HAZARDS (ACUTE AND CHRONIC)

Eye Contact: Contact with dust may be irritating.
Skin Contact: Contact with dust may be irritating.
Skin Absorption: Not applicable.
Ingestion: Ingestion of large amounts may cause gastrointestinal irritation and blockage.
Inhalation: Dusts may irritate the nose, throat, and respiratory tract. Avoid breathing excessive dust. Repeated and prolonged (chronic) exposure to respirable dust in excess of allowable exposure limits can result in pneumoconiosis, a lung disease. Repeated and prolonged (chronic) exposure to respirable crystalline silica-containing dust in excess of allowable exposure limits may cause silicosis, a progressive pneumoconiosis, and possible lung cancer. Smoking may further increase the risk of lung disease. Dry product or hardened product subjected to mechanical forces (such as in demolition work) may result in exposure to respirable dust.

Carcinogenicity:

Crystalline silica, a component of this product, is listed by International Agency for Research on Cancer as a carcinogen. The International Agency for Research on Cancer has determined that there is sufficient evidence of carcinogenicity in experimental animals exposed to crystalline silica and limited evidence of its carcinogenicity in humans. The National Toxicology Program has listed respirable crystalline silica as a known human carcinogen. The American Conference of Governmental Industrial Hygienists has listed respirable crystalline silica (quartz) as a suspected human carcinogen (A-2 designation).

National Toxicology Program	International Agency for Research for Cancer	Occupational Safety and Health Administration
Silica - Known Carcinogen	Silica - Carcinogen (Group 1)	Not Established

California Proposition 65 Warning:

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

California Listed Carcinogen(s):

Crystalline silica (quartz, cristobalite)

Signs and Symptoms of Exposure:

The signs and symptoms of acute exposure to dust from hardened asphalt may include irritation of the eyes, skin, and respiratory tract. Symptoms of silicosis include (but not limited to) shortness of breath, difficulty breathing with or without exertion, coughing, diminished work capacity, diminished chest expansion, reduction in lung volume, right heart enlargement or failure.

Medical Conditions Aggravated by Exposure:

Contact with dust may aggravate existing skin and/or eye conditions. Inhaling respirable dust may aggravate existing respiratory conditions.

EMERGENCY AND FIRST AID**Eyes:**

Immediately flush eyes with plenty of water for 15 minutes, while holding eyelids open. Occasionally lift the eyelids to ensure thorough rinsing. Seek medical attention at once and continue to flush eyes until a physician takes charge.

Skin:

Flush skin with clean water for at least 15 minutes. Remove and wash contaminated clothing. Contact a physician if irritation persists or later develops. Burns should be treated as caustic burns.

Ingestion:

If conscious, give large quantity of water to dilute the stomach contents. Do not attempt to make the person vomit unless directed by medical personnel. Contact a physician immediately.

Dust Inhalation:

Remove to fresh air. Dust in throat and nasal passages should clear spontaneously. Contact physician if irritation persists or later develops.

SECTION 7. PRECAUTIONS FOR SAFE HANDLING AND USE**Steps to be Taken in Case Material is Released or Spilled:**

Personnel involved in cleanup processes should implement controls as identified in Section 8 as appropriate. Prevent spilled materials from entering streams, drainages, or sewers where it can harden and clog flow.

Waste Disposal Method:

None of the components in this product are subject to the reporting requirements of Title III Superfund Amendments and Reauthorization Act, 1986, and 40 Code of Federal Regulations 372. Material can be retained until it hardens. Dispose of waste materials only in accordance with applicable federal, state, and local laws and regulations.

Storage and Handling Precautions:

Respirable dust may be generated during processing, handling and storage. The controls identified in Section 8 should be applied as appropriate. Do not store near food and beverages or smoking material. Avoid incompatible materials.

SECTION 8. PERSONAL PROTECTION AND CONTROL MEASURES

Respiratory Protection:

required under normal use and working conditions. For air contaminant concentrations which exceed or are likely to exceed applicable exposure limits, use a National Institute for Occupational Safety and Health - Mine Safety and Health Administration approved, contaminant-specific, air-purifying respirator. If such concentrations are sufficiently high that the air-purifying respirator is inadequate, or if oxygen adequate to sustain life is not present, use a positive pressure self-contained breathing apparatus. Consult an industrial hygienist for evaluation of exposures. Follow all applicable respirator use, fitting, and training standards and regulations.

Ventilation:

Use only in well ventilated areas. Natural ventilation generally adequate to maintain exposures below appropriate exposure limits under anticipated use conditions.

Local Exhaust:

As required.

Mecanical (General):

As required.

Protective Gloves:

Not required.

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 anticipated.

Other Protective Clothing or Equipment:

Not required.

Hygiene:

Use work practices which minimize generation of airborne dust. Use normal good hygiene practices. Wash hands with soap and water before eating, drinking, smoking, and using toilet facilities. Wash work cloths after each use.

Other Control Measures:

A fresh water supply for emergency first aid and washing facilities should be readily available. An oil-dissolving skin cleaner should be available. Workers should station themselves on the windward side of asphalt emissions when possible. Asphalt emission levels should be monitored as needed to evaluate exposures during handling and use of product, including activities which generate dust from hardened asphalt concrete. Exposures in excess of the permissible exposure limit should be reduced to the lowest feasible level through engineering and administrative controls (such as source control, ventilation and/or work practice changes); respiratory protection should be used only where exposures continue to exceed applicable permissible exposure limits.

SECTION 9. TRANSPORTATION

Department of Transportation Hazard Class:

None

Placard Required:

None

Label Required:

Label as required by the Occupational Safety and Health Administration and Mine Safety and Health Administration Hazard Communication standards [29 Code of Federal Regulations 1910.1200 (f) and 30 Code of Federal Regulations Part 42], and applicable state and local regulations.

SECTION 10. EXPOSURE LIMITS

Legend:

☐ = Not Established; PEL = Permissible Exposure Limit; TLV = Threshold Limit Value; REL = Recommended Exposure Limit; OSHA = Occupational Safety and Health Administration; MSHA = Mine Safety and Health Administration; NIOSH = National Institute for Occupational Safety and Health; ACGIH = American Conference of Governmental Industrial Hygienists, C = Ceiling, TWA = Time-Weighted Average, STEL = Short-Term Exposure Limit, IDLH = Immediately Dangerous to Life or Health, ppm = parts per million, mg = milligram, m³ = cubic meter, %SiO₂ = percent silicon dioxide (silica) in dust

Component	Limit	MSHA PEL	OSHA PEL	ACGIH TLV	NIOSH REL
Particulates (Not Otherwise Regulated)	TWA	10 mg/m3 (Total)	15 mg/m3 (Total) 5 mg/m3 (Respirable)	10 mg/m3 (Inhalable) 3 mg/m3 (Respirable)	NE
	STEL	NE	NE	NE	NE
	C	NE	NE	NE	NE
	IDLH	NE	NE	NE	NE
OTHER EXPOSURES: Cal/OSHA PEL - 10 mg/m3 (Total), 5 mg/3 (Respirable)					
Component	Limit	MSHA PEL	OSHA PEL	ACGIH TLV	NIOSH REL
Crystalline Silica (Quartz, Cristobalite, Tridymite)	TWA	30 mg/m3 (%SiO2+2) (Total particulate containing silica)	10 mg/m3 (%SiO2+2) (Respirable particulate containing silica)	0.025 mg/m3 (Respirable quartz and cristobalite)	0.05 mg/m3 (Respirable silica)
	STEL	NE	NE	NE	NE
	C	NE	NE	NE	NE
	IDLH	NE	NE	NE	25 mg/m3 (Respirable cristobalite and/or tridymite) 50 mg/3 (Respirable quartz)
OTHER EXPOSURES: Cal/OSHA PEL - 0.1 mg/m3 (Respirable quartz), 0.05 mg/m3 (Respirable cristobalite and tridymite)					

SECTION 11. OTHER INFORMATION

Disclaimer of Liability

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