SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Mixture

Product Name: Natural Sand, River Sand Screenings, Aggregates, Bank Sand and Gravel, Crushed Gravel, Round Gravel, Concrete Sand, Asphalt Sand, Mason Sand, Fill Sand, Golf Course Sand, Base Material, Dense Graded Aggregate, Quartz, Gravel, Crushed Rock, Crushed Stone

Synonyms: Sand and Gravel

Note: This SDS covers many types of sand and gravel. Individual composition of hazardous constituents will vary between sand and gravel types.

1.2. Intended Use of the Product

Sand and gravel are aggregates used in the manufacture of bricks, mortar, cement, concrete, plasters, paving materials, and other construction applications. Sand and gravel are distributed in bags, totes and bulk shipment.

1.3. Name, Address, and Telephone of the Responsible Party

Company

Lafarge US
8700 West Bryn Mawr Avenue, Suite 300
Chicago, IL 60631
Information: 773-372-1000 (9am to 5pm CST)
Email: SDSinfo@Lafarge.com
Website: www.lafargeholcim.us

Company

Lafarge Canada

Eastern Canada
6509 Airport Road
Mississauga, ON L4V 157
Phone: (905) 738-7070

Western Canada
#300 115 Quarry Park Road SE
Calgary, AB T2C 5G9
Phone: (403) 271-9110
Website: www.lafarge.ca

1.4. Emergency Telephone Number

Emergency Number: Chemtrec 1-800-424-9300 (24 hours)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

GHS-US/CA Classification

Carc. 1A H350
STOT SE 3 H335
STOT RE 1 H372

Full text of hazard classes and H-statements: see Section 16.

2.2. Label Elements

GHS-US/CA Labeling

Hazard Pictograms (GHS-US/CA): 

Signal Word (GHS-US/CA): Danger


Precautionary Statements (GHS-US/CA): P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe dust.
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves, protective clothing, and eye protection.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P312 - Call a POISON CENTER or doctor if you feel unwell.
P314 - Get medical advice/attention if you feel unwell.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

2.3. Other Hazards
Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

2.4. Unknown Acute Toxicity (GHS-US/CA)
No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product Identifier</th>
<th>%</th>
<th>GHS Ingredient Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz</td>
<td>(CAS-No.) 14808-60-7</td>
<td>50 - 99</td>
<td>Carc. 1A, H350</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>STOT SE 3, H335</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>STOT RE 1, H372</td>
</tr>
</tbody>
</table>

Full text of H-phrases: see Section 16.
*Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%).

SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.

Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

General: May cause respiratory irritation. May cause cancer. Causes damage to organs through prolonged or repeated exposure.

Inhalation: Respiratory irritation. Repeated exposure to respirable (airborne) crystalline silica dust will cause lung damage in the form of silicosis. Some studies show that exposure to respirable crystalline silica (without silicosis) or that the disease silicosis may be associated with the increased incidence of several autoimmune disorders such as scleroderma (thickening of the skin), systemic lupus erythematosus, rheumatoid arthritis and diseases affecting the kidneys. Silicosis increases the risk of tuberculosis. Some studies show an increased incidence of chronic kidney disease and end-stage renal disease in workers exposed to respirable crystalline silica. The extent and severity of lung injury depends on duration and level of exposure.

Skin Contact: Prolonged exposure may cause skin irritation.

Eye Contact: May cause slight irritation to eyes.

Ingestion: Ingestion may cause adverse effects.

Chronic Symptoms: May cause cancer. Causes damage to organs through prolonged or repeated exposure.
Sand and Gravel
Safety Data Sheet
According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed
If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media
Suitable Extinguishing Media: Water spray, dry chemical, foam, carbon dioxide.
Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special Hazards Arising From the Substance or Mixture
Fire Hazard: Not considered flammable but may burn at high temperatures.
Explosion Hazard: Product is not explosive.
Reactivity: Hazardous reactions will not occur under normal conditions.

5.3. Advice for Firefighters
Precautionary Measures Fire: Sand and gravel poses no fire-related hazard. Wear respiratory protection to limit exposure to combustion products when fighting any fire.
Firefighting Instructions: Use water spray or fog for cooling exposed containers.
Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.
Hazardous Combustion Products: Silicon oxides.

Reference to Other Sections
Refer to Section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures
General Measures: Do not breathe dust. Do not get in eyes, on skin, or on clothing. Do not handle until all safety precautions have been read and understood.

6.1.1. For Non-Emergency Personnel
Protective Equipment: Use appropriate personal protective equipment (PPE).

6.1.2. For Emergency Personnel
Protective Equipment: Equip cleanup crew with proper protection.
Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

6.2. Environmental Precautions
Prevent entry to sewers and public waters.

6.3. Methods and Materials for Containment and Cleaning Up
For Containment: Contain solid spills with appropriate barriers and prevent migration and entry into sewers or streams.
Methods for Cleaning Up: Transfer spilled material to a suitable container for disposal. Avoid actions that cause dust to become airborne during clean-up such as dry sweeping or using compressed air. Use HEPA vacuum or thoroughly wet with water to clean-up dust. Use PPE described in Section 8. Contact competent authorities after a spill.

6.4. Reference to Other Sections
See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling
Additional Hazards When Processed: Quartz (silica) will dissolve in hydrofluoric acid producing a corrosive gas, silicon tetrafluoride. Silicates react with powerful oxidizers such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride and oxygen difluoride. Cutting, crushing or grinding crystalline silica-bearing materials may release respirable crystalline silica, a known carcinogen. Use all appropriate measures of dust control or suppression and personal protective.
Precautions for Safe Handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid contact with eyes, skin and clothing. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust.
Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for Safe Storage, Including Any Incompatibilities
Technical Measures: Comply with applicable regulations.
Storage Conditions: Keep container closed when not in use. Store in a dry, cool place away from incompatible materials.
Sand and Gravel
Safety Data Sheet


Storage Temperature: Unlimited.

7.3. Specific End Use(s)
Sand and gravel are aggregates used in the manufacture of bricks, mortar, cement, concrete, plasters, paving materials, and other construction applications. Sand and gravel are distributed in bags, totes and bulk shipment.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters
For substances listed in Section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

Quartz (14808-60-7)

<table>
<thead>
<tr>
<th></th>
<th>Mexico OEL TWA (mg/m³)</th>
<th>USA ACGIH ACGIH TWA (mg/m³)</th>
<th>USA ACGIH ACGIH chemical category</th>
<th>USA OSHA OSHA PEL (TWA) (mg/m³)</th>
<th>USA NIOSH NIOSH REL (TWA) (mg/m³)</th>
<th>USA IDLH US IDLH (mg/m³)</th>
<th>Alberta OEL TWA (mg/m³)</th>
<th>British Columbia OEL TWA (mg/m³)</th>
<th>Manitoba OEL TWA (mg/m³)</th>
<th>New Brunswick OEL TWA (mg/m³)</th>
<th>Newfoundland &amp; Labrador OEL TWA (mg/m³)</th>
<th>Nova Scotia OEL TWA (mg/m³)</th>
<th>Nunavut OEL TWA (mg/m³)</th>
<th>Northwest Territories OEL TWA (mg/m³)</th>
<th>Ontario OEL TWA (mg/m³)</th>
<th>Prince Edward Island OEL TWA (mg/m³)</th>
<th>Québec VEMP (mg/m³)</th>
<th>Saskatchewan OEL TWA (mg/m³)</th>
<th>Yukon OEL TWA (mg/m³)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>0.1 mg/m³ (respirable fraction)</td>
<td></td>
<td></td>
<td>0.025 mg/m³ (respirable particulate matter)</td>
<td>A2 - Suspected Human Carcinogen</td>
<td>50 µg/m³</td>
<td>0.05 mg/m³ (respirable dust)</td>
<td>50 mg/m³ (respirable dust)</td>
<td>0.025 mg/m³ (respirable)</td>
<td>0.025 mg/m³ (respirable particulate matter)</td>
<td>0.025 mg/m³ (respirable particulate matter)</td>
<td>0.025 mg/m³ (respirable particulate matter)</td>
<td>0.05 mg/m³ (respirable fraction)</td>
<td>0.05 mg/m³ (respirable fraction)</td>
<td>0.1 mg/m³ (designated substances regulation-respirable)</td>
<td>0.025 mg/m³ (respirable particulate matter)</td>
<td>0.1 mg/m³ (respirable dust)</td>
<td>0.05 mg/m³ (respirable fraction)</td>
</tr>
</tbody>
</table>

8.2. Exposure Controls
Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.


Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear protective gloves.

Eye and Face Protection: Chemical safety goggles.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties
Physical State: Solid
Appearance: White or Light Gray/Brown Granular Solid
Odor: None
Odor Threshold: Not available
pH: Neutral
Evaporation Rate: Not available
Melting Point: Not available
Freezing Point: None, Solid
Boiling Point: > 1000 °C (> 1832 °F)
Flash Point: Not available
Auto-ignition Temperature: Not available
Decomposition Temperature: Not available
Flammability (solid, gas): Not available
Lower Flammable Limit: Not available
Upper Flammable Limit: Not available
Vapor Pressure: Not available
Relative Vapor Density at 20°C: Not available
Relative Density: Not available
Specific Gravity: 2.7 (Water = 1)
Solubility: Insoluble in water
Partition Coefficient: N-Octanol/Water: Not available
Viscosity: None, Solid

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity: Hazardous reactions will not occur under normal conditions.
10.2. Chemical Stability: Stable under recommended handling and storage conditions (see Section 7).
10.3. Possibility of Hazardous Reactions: Hazardous polymerization will not occur.
10.6. Hazardous Decomposition Products: None expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects - Product
Acute Toxicity (Oral): Not classified
Acute Toxicity (Dermal): Not classified
Acute Toxicity (Inhalation): Not classified
LD50 and LC50 Data: Not available
Skin Corrosion/Irritation: Not classified
pH: Neutral
Eye Damage/Irritation: Not classified
pH: Neutral
Respiratory or Skin Sensitization: Not classified
Germ Cell Mutagenicity: Not classified
Carcinogenicity: May cause cancer (Inhalation).
Specific Target Organ Toxicity (Repeated Exposure): Causes damage to organs (lung/respiratory system) through prolonged or repeated exposure (Inhalation).
Reproductive Toxicity: Not classified
Specific Target Organ Toxicity (Single Exposure): May cause respiratory irritation.
Aspiration Hazard: Not classified
Symptoms/Injuries After Inhalation: Respiratory irritation. Repeated exposure to respirable (airborne) crystalline silica dust will cause lung damage in the form of silicosis. Some studies show that exposure to respirable crystalline silica (without silicosis) or that the disease silicosis may be associated with the increased incidence of several autoimmune disorders such as scleroderma (thickening of the skin), systemic lupus erythematosus, rheumatoid arthritis and diseases affecting the kidneys. Silicosis increases the risk of...
tuberculosis. Some studies show an increased incidence of chronic kidney disease and end-stage renal disease in workers exposed to respirable crystalline silica. The extent and severity of lung injury depends on duration and level of exposure.

**Symptoms/Injuries After Skin Contact:** Prolonged exposure may cause skin irritation.

**Symptoms/Injuries After Eye Contact:** May cause slight irritation to eyes.

**Symptoms/Injuries After Ingestion:** Ingestion may cause adverse effects.

**Chronic Symptoms:** May cause cancer. Causes damage to organs through prolonged or repeated exposure.

11.2. **Information on Toxicological Effects - Ingredient(s)**

**LD50 and LC50 Data:**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>LD50 Oral Rat</th>
<th>LD50 Dermal Rat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz (14808-60-7)</td>
<td>&gt; 5000 mg/kg</td>
<td>&gt; 5000 mg/kg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IARC Group</th>
<th>National Toxicology Program (NTP) Status</th>
<th>OSHA Hazard Communication Carcinogen List</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Known Human Carcinogens.</td>
<td>In OSHA Hazard Communication Carcinogen list.</td>
</tr>
</tbody>
</table>

**SECTION 12: ECOLOGICAL INFORMATION**

12.1. **Toxicity**

Ecology - General: Not classified.

12.2. **Persistence and Degradability**

<table>
<thead>
<tr>
<th>Sand and Gravel</th>
<th>Persistence and Degradability</th>
<th>Not established.</th>
</tr>
</thead>
</table>

12.3. **Bioaccumulative Potential**

<table>
<thead>
<tr>
<th>Sand and Gravel</th>
<th>Bioaccumulative Potential</th>
<th>Not established.</th>
</tr>
</thead>
</table>

12.4. **Mobility in Soil**

Not available

12.5. **Other Adverse Effects**

Other Information: Avoid release to the environment.

**SECTION 13: DISPOSAL CONSIDERATIONS**

13.1. **Waste treatment methods**

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

Additional Information: Container may remain hazardous when empty. Continue to observe all precautions.

Ecology - Waste Materials: Avoid release to the environment.

**SECTION 14: TRANSPORT INFORMATION**

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

14.1. **In Accordance with DOT** Not regulated for transport

14.2. **In Accordance with IMDG** Not regulated for transport

14.3. **In Accordance with IATA** Not regulated for transport

14.4. **In Accordance with TDG** Not regulated for transport

**SECTION 15: REGULATORY INFORMATION**

15.1. **US Federal Regulations**

<table>
<thead>
<tr>
<th>Sand and Gravel</th>
<th>SARA Section 311/312 Hazard Classes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Health hazard - Specific target organ toxicity (single or repeated exposure)</td>
</tr>
<tr>
<td></td>
<td>Health hazard - Carcinogenicity</td>
</tr>
</tbody>
</table>

Quartz (14808-60-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Sand and Gravel
Safety Data Sheet
According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

### 15.2. US State Regulations

<table>
<thead>
<tr>
<th>Quartz (14808-60-7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. - California - Proposition 65 - Carcinogens List</td>
</tr>
<tr>
<td>WARNING: This product contains chemicals known to the State of California to cause cancer.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quartz (14808-60-7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. - Massachusetts - Right To Know List</td>
</tr>
<tr>
<td>U.S. - New Jersey - Right to Know Hazardous Substance List</td>
</tr>
<tr>
<td>U.S. - Pennsylvania - RTK (Right to Know) List</td>
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</tbody>
</table>

### 15.3. Canadian Regulations

Quartz (14808-60-7)
Listed on the Canadian DSL (Domestic Substances List)

**SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION**

<table>
<thead>
<tr>
<th>Date of Preparation or Latest Revision</th>
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<tr>
<td>04/20/2018</td>
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</table>

**Other Information**

This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada’s Hazardous Products Regulations (HPR) SOR/2015-17.

**GHS Full Text Phrases:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carc. 1A</td>
<td>Carcinogenicity Category 1A</td>
</tr>
<tr>
<td>STOT RE 1</td>
<td>Specific target organ toxicity (repeated exposure) Category 1</td>
</tr>
<tr>
<td>STOT SE 3</td>
<td>Specific target organ toxicity (single exposure) Category 3</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation</td>
</tr>
<tr>
<td>H350</td>
<td>May cause cancer</td>
</tr>
<tr>
<td>H372</td>
<td>Causes damage to organs through prolonged or repeated exposure</td>
</tr>
</tbody>
</table>

An electronic version of this SDS is available: for Canada on www.lafarge.ca under the Health and Safety Section, and for US on www.lafargeholcim.us under the Our Solutions and Products Section. Please direct any inquiries regarding the content of this SDS to SDSinfo@Lafarge.com.

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