Gravel and Crushed Stone
Safety Data Sheet
According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations
Revision Date: 11/09/2020 Date of issue: 05/27/2015

SECTION 1: IDENTIFICATION

Product Identifier
Product Form: Mixture
Product Name: Crushed Stone
Synonyms: Aggregate, Flexible Base, Natural Limestone, Gravel, Construction Aggregate, Manufactured Sand, Screenings

Intended Use of the Product
Use of the Substance/Mixture: Building materials, construction.

Name, Address, and Telephone of the Responsible Party

Company:
Titan Mid-Atlantic Aggregates LLC
25230 Sussex Drive
Waverly, VA 23890

Titan Florida LLC
455 Fairway Dr.
Deerfield Beach, FL 33441

Emergency Telephone Number CHEMTREC - 800-424-9300

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture
Classification (GHS-US)
STOT RE 1 H372
Full text of H-phrases: see section 16

Label Elements
GHS-US Labeling
Hazard Pictograms (GHS-US): 

Signal Word (GHS-US): Danger
Hazard Statements (GHS-US): H372 - Causes damage to organs through prolonged or repeated exposure.
Precautionary Statements (GHS-US): 
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.
P314 - Get medical advice/attention if you feel unwell.
P501 - Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

Other Hazards
Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. Repeated or prolonged exposure to respirable (airborne) crystalline silica dust will cause lung damage in the form of silicosis. Symptoms will include progressively more difficult breathing, cough, fever, and weight loss.

Unknown Acute Toxicity (GHS-US): Not available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Mixture</th>
<th>Product Identifier</th>
<th>% (w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limestone</td>
<td>(CAS No) 1317-65-3</td>
<td>0 - 100</td>
</tr>
<tr>
<td>Quartz</td>
<td>(CAS No) 14808-60-7</td>
<td>&gt;= 1</td>
</tr>
</tbody>
</table>
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Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

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 if possible).
Inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists.
Skin Contact: Rinse immediately with plenty of water. 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: Do not induce vomiting. Rinse mouth. Seek medical attention if any problems arise.

Most Important Symptoms and Effects Both Acute and Delayed
General: Causes damage to organs through prolonged or repeated exposure.
Inhalation: Repeated exposure to respirable (airborne) crystalline silica dust will cause lung damage in the form of silicosis.
Skin Contact: Repeated or prolonged skin contact may cause irritation.
Eye Contact: Repeated or prolonged contact will cause mechanical irritation.
Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: Causes damage to organs through prolonged or repeated exposure. Repeated or prolonged exposure to respirable (airborne) crystalline silica dust will cause lung damage in the form of silicosis. Symptoms will include progressively more difficult breathing, cough, fever, and weight loss.

Indication of Any Immediate Medical Attention and Special Treatment Needed
If you feel unwell, seek medical advice (show the label where possible).

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media
Suitable Extinguishing Media: No fire hazard present for this material.
Unsuitable Extinguishing Media: No fire hazard present for this material.

Special Hazards Arising From the Substance or Mixture
Fire Hazard: Not flammable.
Explosion Hazard: Product is not explosive.
Reactivity: Hazardous reactions will not occur under normal conditions.

Advice for Firefighters
Precautionary Measures Fire: No fire hazard present for this material.
Firefighting Instructions: No fire hazard present for this material.
Protection During firefighting: No fire hazard present for this material.
Hazardous Combustion Products: Oxides of calcium.
Other Information: Refer to Section 9 for flammability properties.

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

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

For Emergency Personnel
Protective Equipment: Equip cleanup crew with proper protection.
Emergency Procedures: Ventilate area.
Environmental Precautions: Not available

Methods and Material for Containment and Cleaning Up
For Containment: Contain and collect as any solid.
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Reference to Other Sections
See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling
Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Conditions for Safe Storage, Including Any Incompatibilities
Technical Measures: Comply with applicable regulations.
Storage Conditions: Keep/Store away from Incompatible materials.
Specific End Use(s)
Building materials, construction.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

Quartz (14808-60-7)

<table>
<thead>
<tr>
<th>Region</th>
<th>Standard</th>
<th>Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mexico</td>
<td>OEL (mg/m³)</td>
<td>0.1 mg/m³ (respirable fraction)</td>
</tr>
<tr>
<td>USA</td>
<td>OEL (mg/m³)</td>
<td>0.025 mg/m³ (respirable fraction)</td>
</tr>
<tr>
<td>USA ACGIH</td>
<td>ACGIH (mg/m³)</td>
<td>A2 - Suspected Human Carcinogen</td>
</tr>
<tr>
<td>USA OSHA</td>
<td>OSHA PEL (STEL) (mg/m³)</td>
<td>250 mppcf/%SiO₂+5, 10mg/m³/%SiO₂+2</td>
</tr>
<tr>
<td>USA NIOSH</td>
<td>NIOSH REL (TWA) (mg/m³)</td>
<td>0.05 mg/m³ (respirable dust)</td>
</tr>
<tr>
<td>USA IDLH</td>
<td>US IDLH (mg/m³)</td>
<td>50 mg/m³ (respirable dust)</td>
</tr>
<tr>
<td>Alberta</td>
<td>OEL (mg/m³)</td>
<td>0.025 mg/m³ (respirable particulate)</td>
</tr>
<tr>
<td>British Columbia</td>
<td>OEL (mg/m³)</td>
<td>0.025 mg/m³ (respirable)</td>
</tr>
<tr>
<td>Manitoba</td>
<td>OEL (mg/m³)</td>
<td>0.025 mg/m³ (respirable fraction)</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>OEL (mg/m³)</td>
<td>0.1 mg/m³ (respirable fraction)</td>
</tr>
<tr>
<td>Newfoundland &amp; Labrador</td>
<td>OEL (mg/m³)</td>
<td>0.025 mg/m³ (respirable fraction)</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>OEL (mg/m³)</td>
<td>0.025 mg/m³ (respirable fraction)</td>
</tr>
<tr>
<td>Nunavut</td>
<td>OEL (mg/m³)</td>
<td>0.1 mg/m³ (respirable mass)</td>
</tr>
<tr>
<td></td>
<td>OEL (mg/m³)</td>
<td>0.3 mg/m³ (total mass)</td>
</tr>
<tr>
<td>Northwest Territories</td>
<td>OEL (mg/m³)</td>
<td>0.1 mg/m³ (respirable mass)</td>
</tr>
<tr>
<td></td>
<td>OEL (mg/m³)</td>
<td>0.3 mg/m³ (total mass)</td>
</tr>
<tr>
<td>Ontario</td>
<td>OEL (mg/m³)</td>
<td>0.10 mg/m³ (designated substances regulation-respirable)</td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td>OEL (mg/m³)</td>
<td>0.025 mg/m³ (respirable fraction)</td>
</tr>
<tr>
<td>Québec</td>
<td>VEMP (mg/m³)</td>
<td>0.1 mg/m³ (respirable dust)</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>OEL (mg/m³)</td>
<td>0.05 mg/m³ (respirable fraction)</td>
</tr>
<tr>
<td>Yukon</td>
<td>OEL (mg/m³)</td>
<td>300 particle/mL</td>
</tr>
</tbody>
</table>

Limestone (1317-65-3)

<table>
<thead>
<tr>
<th>Region</th>
<th>Standard</th>
<th>Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mexico</td>
<td>OEL (mg/m³)</td>
<td>10 mg/m³</td>
</tr>
<tr>
<td>Mexico</td>
<td>OEL STEL (mg/m³)</td>
<td>20 mg/m³</td>
</tr>
<tr>
<td>USA OSHA</td>
<td>OSHA PEL (TWA) (mg/m³)</td>
<td>15 mg/m³ (total dust)</td>
</tr>
<tr>
<td>USA NIOSH</td>
<td>NIOSH REL (TWA) (mg/m³)</td>
<td>5 mg/m³ (respirable fraction)</td>
</tr>
<tr>
<td>Alberta</td>
<td>OEL (mg/m³)</td>
<td>10 mg/m³ (total dust)</td>
</tr>
<tr>
<td>British Columbia</td>
<td>OEL STEL (mg/m³)</td>
<td>20 mg/m³ (total dust)</td>
</tr>
<tr>
<td>British Columbia</td>
<td>OEL (mg/m³)</td>
<td>10 mg/m³ (total dust)</td>
</tr>
<tr>
<td></td>
<td>OEL (mg/m³)</td>
<td>3 mg/m³ (respirable fraction)</td>
</tr>
</tbody>
</table>
| New Brunswick | OEL (mg/m³) | 10 mg/m³ (particulate matter containing no Asbestos and...
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<table>
<thead>
<tr>
<th></th>
<th>Nunavut</th>
<th>Northwest Territories</th>
<th>Québec</th>
<th>Saskatchewan</th>
<th>Saskatchewan</th>
<th>Yukon</th>
<th>Yukon</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OEL TWA (mg/m³)</td>
<td>OEL TWA (mg/m³)</td>
<td>VEMP (mg/m³)</td>
<td>OEL STEL (mg/m³)</td>
<td>OEL TWA (mg/m³)</td>
<td>OEL TWA (mg/m³)</td>
<td>OEL TWA (mg/m³)</td>
</tr>
<tr>
<td></td>
<td>5 mg/m³ (respirable mass)</td>
<td>5 mg/m³ (respirable mass)</td>
<td>10 mg/m³ (Limestone, containing no Asbestos and &lt;1% Crystalline silica-total dust)</td>
<td>20 mg/m³</td>
<td>10 mg/m³</td>
<td>20 mg/m³</td>
<td>30 mppcf 10 mg/m³</td>
</tr>
</tbody>
</table>

**Exposure Controls**

**Appropriate Engineering Controls:** Ensure adequate ventilation, especially in confined areas. Clean water should always be readily available for skin and (emergency) eye washing. Ensure all national/local regulations are observed.

**Personal Protective Equipment:** Protective goggles or safety glasses with side shields. Gloves. Protective clothing. Dust formation: dust mask or Respirator (See Below).

Materials for Protective Clothing: Wear suitable materials and fabrics.

**Hand Protection:** Wear protective gloves.

**Eye Protection:** Goggles or safety glasses.

**Skin and Body Protection:** Wear suitable protective clothing.

**Respiratory Protection:** Use NIOSH-approved dust mask or properly fitted, particulate filter respirator complying with an approved standard (NIOSH/MSHA), if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product, and assigned protection factor of the selected respirator.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**Information on Basic Physical and Chemical Properties**

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Solid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Gray or brown, solid mixture</td>
</tr>
<tr>
<td>Odor</td>
<td>Faint</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not available</td>
</tr>
<tr>
<td>Lower Flammable Limit</td>
<td>Not available</td>
</tr>
<tr>
<td>Upper Flammable Limit</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not available</td>
</tr>
<tr>
<td>Relative Vapor Density at 20 °C</td>
<td>Not available</td>
</tr>
<tr>
<td>Relative Density</td>
<td>Not available</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.7 - 3.0</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble in water.</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>Partition Coefficient: N-Octanol/Water</th>
<th>Not available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity</td>
<td>Not available</td>
</tr>
<tr>
<td>Explosion Data – Sensitivity to Mechanical Impact</td>
<td>Not expected to present an explosion hazard due to mechanical impact.</td>
</tr>
<tr>
<td>Explosion Data – Sensitivity to Static Discharge</td>
<td>Not expected to present an explosion hazard due to static discharge.</td>
</tr>
</tbody>
</table>

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Hazardous reactions will not occur under normal conditions.
Chemical Stability: Stable under recommended handling and storage conditions (see section 7).
Possibility of Hazardous Reactions: Hazardous polymerization will not occur.
Conditions to Avoid: Incompatible materials.
Incompatible Materials: Strong acids, strong bases, strong oxidizers.
Hazardous Decomposition Products: Quartz (silica) will dissolve in hydrofluoric acid producing a corrosive gas, silicon tetrafluoride.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity: Not classified
LD50 and LC50 Data: Not available
Skin Corrosion/Irritation: Not classified
Serious Eye Damage/Irritation: Not classified
Respiratory or Skin Sensitization: Not classified
Germ Cell Mutagenicity: Not classified
Teratogenicity: Not classified
Carcinogenicity: Not classified.

Specific Target Organ Toxicity (Repeated Exposure): Causes damage to organs through prolonged or repeated exposure.
Reproductive Toxicity: Not classified
Specific Target Organ Toxicity (Single Exposure): Not classified
Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Repeated exposure to respirable (airborne) crystalline silica dust will cause lung damage in the form of silicosis.
Symptoms/Injuries After Skin Contact: Repeated or prolonged skin contact may cause irritation.
Symptoms/Injuries After Eye Contact: Repeated or prolonged contact will cause mechanical irritation.
Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: Causes damage to organs through prolonged or repeated exposure. Repeated or prolonged exposure to respirable (airborne) crystalline silica dust will cause lung damage in the form of silicosis. Symptoms will include progressively more difficult breathing, cough, fever, and weight loss.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Quartz (14808-60-7)

| Oral Rat | > 5000 mg/kg |
| Dermal Rat | > 5000 mg/kg |

Quartz (14808-60-7)

IARC Group 1
National Toxicology Program (NTP) Status Known Human Carcinogens.
OSHA Hazard Communication Carcinogen List In OSHA Hazard Communication Carcinogen list.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity No additional information available
Persistence and Degradability Not available
Bioaccumulative Potential Not available
Mobility in Soil Not available
Other Adverse Effects
Other Information: Avoid release to the environment.
## Section 13: Disposal Considerations

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

**Ecology – Waste Materials:** Avoid release to the environment.

## Section 14: Transport Information

- **In Accordance with DOT** Not regulated for transport
- **In Accordance with IMDG** Not regulated for transport
- **In Accordance with IATA** Not regulated for transport
- **In Accordance with TDG** Not regulated for transport

## Section 15: Regulatory Information

### US Federal Regulations

**Crushed Stone**

<table>
<thead>
<tr>
<th>SARA Section 311/312 Hazard Classes</th>
<th>Delayed (chronic) health hazard</th>
</tr>
</thead>
</table>

**Quartz (14808-60-7)**

- Listed on the United States TSCA (Toxic Substances Control Act) inventory
- **SARA Section 311/312 Hazard Classes**
  - Immediate (acute) health hazard
  - Delayed (chronic) health hazard

**Limestone (1317-65-3)**

- Listed on the United States TSCA (Toxic Substances Control Act) inventory

### US State Regulations

**Quartz (14808-60-7)**

- U.S. - California - Proposition 65 - Carcinogens List
  - **WARNING:** This product contains chemicals known to the State of California to cause cancer.

- U.S. - Massachusetts - Right To Know List
- U.S. - New Jersey - Right to Know Hazardous Substance List
- U.S. - Pennsylvania - RTK (Right to Know) List

**Limestone (1317-65-3)**

- U.S. - Massachusetts - Right To Know List
- U.S. - New Jersey - Right to Know Hazardous Substance List
- U.S. - Pennsylvania - RTK (Right to Know) List

### Canadian Regulations

**Crushed Stone**

| WHMIS Classification | Class D Division 2 Subdivision A - Very toxic material causing other toxic effects |

**Quartz (14808-60-7)**

- Listed on the Canadian DSL (Domestic Substances List)
- Listed on the Canadian IDL (Ingredient Disclosure List)
- **IDL Concentration 1 %**
- **WHMIS Classification**
  - Class D Division 2 Subdivision A - Very toxic material causing other toxic effects
  - Class D Division 2 Subdivision B - Toxic material causing other toxic effects

**Limestone (1317-65-3)**

- Listed on the Canadian NDSL (Non-Domestic Substances List)
- **WHMIS Classification**
  - Uncontrolled product according to WHMIS classification criteria
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

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

**Revision Date**: 05/27/2015  
**Other Information**: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

**GHS Full Text Phrases**:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>STOT RE 1</td>
<td>Specific target organ toxicity (repeated exposure) Category 1</td>
</tr>
<tr>
<td>H372</td>
<td>Causes damage to organs through prolonged or repeated exposure</td>
</tr>
</tbody>
</table>

“The information provided herein is believed by seller to be accurate at the time of preparation, or prepared from sources believed to be reliable. Health and safety precautions in this data sheet may not be adequate for all individuals or situations. Users have the responsibility to comply with all laws and procedures applicable to the safe handling and use of the product, to determine the suitability of the product for its intended use, and to understand possible hazards associated with mixing this product with other materials. SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT, THE MERCHANTABILITY, OR FITNESS THEREOF FOR ANY PURPOSE, OR CONCERNING THE ACCURACY OF ANY INFORMATION PROVIDED BY SELLER”.

NA GHS SDS