



CRUSHED STONE

This Material Safety Data Sheet (MSDS) contains toxicological, industrial hygiene, safety and environmental information for your employees. Please make sure they are provided with this information. This MSDS also contains information to assist with compliance with Community right-to-know and emergency response reporting requirements under SARA Title III and other regulations. If you resell this product, provide the buyer with a copy of this MSDS or incorporate this information into a new MSDS. This MSDS was prepared according to the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200) and guidelines provided by the American National Standards Institute (ANSI) MSDS Standard (ANSI Z400-1).

Section 1 Product and Company Identification

Product Name	Crushed Stone
CAS Number	Mixture
Generic Names	Basalt/Diabase-Trap Rock, Stone Dust; Processed Aggregate
Chemical Name	Mineral Silicates and Oxides
Manufacturer	Tilcon Connecticut Inc. 642 Black Rock Avenue P.O. Box 1357 New Britain, CT 06050-1357 (860) 223-3651 (8AM-5PM)
Telephone Numbers	Product Information: (860) 612-3187 (8AM-5PM) CHEMTREC Emergency (800) 424-9300

Section 2 Composition / Information on Ingredients

Name	CAS #	% (Wt)	Exposure Limits	Reference
Crystalline Silica	14808-60-7	>1	30 mg/m ³ / (%SiO ₂ +2) total dust 10 mg/m ³ / (%SiO ₂ +2) respirable fraction 0.05 mg/m ³ TWA respirable dust	OSHA PEL OSHA PEL ACGIH TLV

TWA: Time Weighted Average
TLV: Threshold Limit Value

ACGIH: American Conference of Government Industrial Hygienists
PEL: Permissible Exposure Limit

Crushed stone is a stable, odorless solid; dark gray to orange-brown in color. The general geochemistry of this material can be described as silicates and oxides of calcium, sodium, aluminum, silicon, iron, magnesium and tin. It contains of some of the following naturally occurring substances:

- basalt/diabase
- calcium-sodium alumino silicates (plagioclase feldspar)
- calcium iron magnesium alumino silicates (pyroxene)
- iron titanium oxide (titanomagnetite)
- SiO₂ (quartz)



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Section 3 Hazards Identification

EMERGENCY OVERVIEW:

Crushed stone is a mixture of naturally occurring minerals from glacial deposits graded for various fine to course aggregate sizes. Such materials contain crystalline silica (quartz), which can be harmful if inhaled; overexposure can cause lung damage. Quartz is an inhalation cancer hazard, with risk based on duration and level of exposure.

NTP lists quartz as a Known Human Carcinogen, IARC as Human Sufficient Evidence, and ACGIH as A2 – suspected Human Carcinogen.

POTENTIAL HEALTH EFFECTS:

<p>INHALATION:</p> <p>SKIN CONTACT:</p> <p>EYE CONTACT:</p> <p>INGESTION:</p> <p>CARCINOGEN STATUS:</p>	<p>Short term exposure can cause respiratory tract irritation. Long term exposure can cause respiratory tract irritation, weight loss, chest pain, lung damage, cancer.</p> <p>Short term exposure can cause irritation. No long term information.</p> <p>Short term exposure causes irritation. Long term exposure can cause eye damage.</p> <p>Short term effects: irritation. Long term: no data</p> <p>OSHA-No NTP-Yes IARC-Yes ACGIH-Suspected</p>
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NTP-National Toxicology program
IARC-International Agency for Research on Cancer

Section 4 First Aid Measures

<p>INHALATION:</p> <p>SKIN CONTACT:</p> <p>EYE CONTACT:</p> <p>INGESTION:</p>	<p>If adverse effects occur, immediately remove from further exposure. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical assistance.</p> <p>Wash contact areas with soap and water.</p> <p>If product comes in contact with eyes, flush with clear water and contact physician.</p> <p>If ingested, consult a physician.</p>
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Section 5 Fire Fighting Measures

Not considered a fire or explosion hazard.



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Section 6	Accidental Release Measures
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Sweep up and reclaim. Wet sweeping or HEPA vacuuming may be used to avoid dust for the fine material.

Section 7	Handling and Storage
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Handling and Storage Procedures:

Practice good housekeeping and dustless system for handling, storage and cleanup to keep dust below PEL's.

Section 8	Exposure Controls/Personal Protection
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GENERAL CONSIDERATIONS:

Quartz is a component of crushed stone and can be a cancer hazard in humans. The exposure limit is based on the percent of SiO₂ which can vary widely. Exposure to respirable silica (quartz) dust is possible, and additional exposure control measures may be required to keep exposure limits below the following recommended exposure limits:

30 mg/m ³ /(%SiO ₂ +2) total dust	OSHA PEL
10 mg/m ³ /(%SiO ₂ +2) respirable fraction	OSHA PEL
0.05 mg/m ³ TWA respirable dust	ACGIH TLV

ENGINEERING CONTROLS

This product is generally used in a well-ventilated area. If operating conditions generate dusts that exceed current government occupational standards, use local or general exhaust ventilation or other engineering controls to control exposure. Use process enclosures, local exhaust ventilation, or other engineering controls to keep employee exposure levels below recommended levels.

PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE PROTECTION

No eye protection is normally required. Wear chemical goggles and face shield if engineering controls or work practices are not adequate to prevent eye contact.

SKIN PROTECTION

No protective clothing is normally required. Wear insulated clothing to prevent skin contact if engineering controls or work practices are not adequate to prevent skin contact.



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RESPIRATORY PROTECTION

If material generates dusts that are not adequately controlled by ventilation, wear an appropriate NIOSH approved respirator. Use a positive pressure, air-supplying respirator if there is potential for uncontrolled release, exposure levels are not know, or other circumstances where air-purifying respirators may not provide adequate protection.

Section 9 Physical and Chemical Properties

Appearance:	Dark grey to orange-brown pieces	Odor:	odorless
Physical State:	Solid	pH:	NA
Vapor pressure: (mmHg):	ND	Vapor Density:	NA
Boiling Point (F):	ND	Melting Point:	ND
Solubility (water):	negligible	Viscosity:	NA
Freezing Point:	NA	VOC:	ND
Evaporation Rate:	NA	Specific Gravity:	ND
Percent Volatile:	NA		

ND – Not Determined NA – Not Applicable

Section 10 Stability and Reactivity

Stability: Stable material.

Hazardous Decomposition Products: none at normal temperatures. Higher temperatures can change crystal structure to form tridymite or cristobalite, which have greater health hazards.

Conditions to Avoid: Avoid generating dust.

Incompatibility (Materials To Avoid): Strong oxidizers, alkalis, hydrofluoric acid, manganese trioxide and fluoride containing compounds.

Hazardous Polymerization: Will not occur.

Section 11 Toxicological Information

Primary Routes of Exposure: Inhalation. Inhaling respirable dust and/or crystalline silica may aggravate existing respiratory diseases. Exposure to dust may aggravate existing skin or eye conditions.

ACUTE TOXICITY: (Crystalline Silica)

Eyes: May cause irritation due to mechanical abrasion.

Skin: May cause irritation of intact skin due to mechanical abrasion.

Inhalation: Exposure to high concentrations may cause physical discomfort of the upper respiratory tract.

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CHRONIC TOXICITY (Crystalline Silica):

Eyes: Chronic exposure may cause adverse eye conditions. An abnormally high cornea silicon content and a gradual decrease in visual acuity due to corneal opacities in the pupillary area have been reported in a group of foundry workers.

Skin: No data available.

Inhalation: Exposure to high concentrations of finely divided crystalline silica dust has been associated with silicosis, a progressively disabling fibrotic lung disease. Symptoms may include shortness of breath, productive cough, wheezing. A slowly developing silicosis may result from exposure from six months to thirty years to relatively low levels of the dust.

OTHER TOXICOLOGICAL CONSIDERATIONS:

To pose a danger to the lungs, the crystalline silica dust must be respirable, i.e., smaller than 10 microns, or about 0.0004". Crushed stone is processed to particles of a considerably larger size. Sampling should be considered to assure that exposures are under regulatory guidelines.

Section 12 Ecological Information

This material is relatively inert. No ecological information found.

Section 13 Disposal Considerations

Use material for its intended purpose or recycle. Dispose of in accordance with all applicable regulations.

Section 14 Transport Information

No classification assigned.



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Section 15 Regulatory Information

SARA Title III

Section 302: This product is not known to contain any Extremely Hazardous Substances in concentrations greater than one percent.

Section 304: Not regulated.

Section 311/312: This product may meet one or more of the criteria for the hazard categories as noted below:

Immediate (Acute) Health Hazard	No
Delayed (Chronic) Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Section 313: This product is not known to contain any components in concentrations above *de minimis* levels.

Section 16 Other Information

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PREPARED BY: Triton Environmental Inc.

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