

Section 1 - Product and Company Identification

Material Identity: Aggregate Products

Trade Names/Synonyms: Limestone, Crushed Stone, Ag Lime, Rip Rap, Sand, Gravel, Granite

Manufacturer Information:

Blue Water Industries
200 West Forsyth Street, Suite 1200
Jacksonville, FL 32202
Telephone Number: 1-865-617-0154 or 1-270-535-9762
Contact: Safety and Health Manager

Primary Use of the Product: Construction Materials

Section 2 – Hazards Identification

GHS Classification:

Carcinogenicity – Category 1A
Specific Target Organ Toxicity (Repeat Exposure) – Category 1
Eye Irritation – Category 2B
Skin Irritation – Category 2



Signal Word

Danger

Hazard Statements

May cause cancer (inhalation).
Causes damage to organs (lung/respiratory system) through prolonged or repeated exposure (inhalation).
May cause respiratory irritation.
May cause skin and eye irritation.

Precautionary Statements

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dust. Breathing respirable crystalline silica containing dusts for repeated or prolonged periods in the workplace may cause lung damage and a lung disease called silicosis.
Wash hands, forearms, and exposed areas thoroughly after handling.
Do not eat, drink, or smoke when manually handling this product.
Wear eye protection, protective clothing, protective gloves.
Store and use in well-ventilated area(s).
Dispose of contents/container according to local, regional, national, and international regulations.
If exposed or concerned: Get medical advice/attention.

Section 3 – Composition/Information on Ingredients

Name	Product Identifier (CAS#)	Percent	Classification GHS
Quartz (crystalline silica)	(CAS #) 14808-60-7	0-100%	Carc. -1A STOT RE - 1
Limestone (calcium carbonate)	(CAS #) 1317-65-3	0-100%	Not classified

NOTE: Respirable Crystalline Silica (RCS) may cause cancer. Crystalline Silica (Quartz) is a component of all aggregates products. Aggregates products are naturally occurring materials of variable composition which may contain greater than 0.1% crystalline silica (Quartz). In their natural bulk state, aggregates products are not a known health hazard. Aggregates products may be subjected to various natural or mechanical forces that produce small particles (dust) which may contain respirable crystalline silica (particles less than 10 micrometers in aerodynamic diameter). Repeated inhalation of respirable crystalline silica (quartz) may cause lung cancer according to IARC and NTP; ACGIH states that it is a suspected cause of cancer. Other forms of RCS (e.g. tridymite and cristobalite) may also be present or formed under certain industrial process. Calcium Carbonate (CAS # 1317-65-3) is a product of limestone only.

Section 4 – First Aid Measures

Inhalation: Remove to fresh air. Obtain medical attention if symptoms develop or persist.

Skin: Rinse skin with soap and water after manually handling. Remove contaminated clothing, including footwear. Wash contaminated clothing before reuse. Obtain medical attention if irritation develops or persists.

Eyes: Immediately flush eye(s) with plenty of clean water for at least 15 minutes, while holding eyelid(s) open. Remove contact lenses, if present and easy to do. Continue flushing. Beyond flushing, do not attempt to remove material from the eye(s). Obtain medical attention if irritation develops or persists.

Ingestion: Rinse mouth and drink plenty of water. If person is conscious, do not induce vomiting. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, lower head to avoid aspiration into lungs. Get medical attention.

General: If you feel unwell, seek medical advice - show label/SDS to ensure that medical personnel are aware of the materials involved.

Symptoms and Effects

Inhalation of dust may cause respiratory irritation, shortness of breath, and coughing. Direct contact with skin and eyes may cause irritation. Ingestion of large quantities may cause gastrointestinal irritation including nausea, vomiting, diarrhea, and blockage.

Repeated or prolonged exposure to high levels of respirable crystalline silica may cause chronic health effects. May cause silicosis, lung cancer, and autoimmune disorders. Often, individuals with silicosis will show no symptoms of the disease. If symptoms are present, they may include shortness of breath, wheezing, coughing, diminished work capacity and chest expansion, and reduction in lung volume. Pre-existing medical conditions that may be aggravated by exposure include disorders of the eye, skin and lung (including asthma and other breathing disorders). There are reports in the literature suggesting that excessive crystalline silica exposure may be associated with adverse health effects involving the kidney, scleroderma (thickening of the skin caused by swelling and thickening of fibrous tissue) and other autoimmune disorders. However, to date, this evidence does not conclusively prove a causal relationship between silica or silicosis and these adverse health effects. Smoking tobacco impairs the ability of the lungs to clear themselves of dust.

Section 5 – Fire Fighting Measures

Suitable Extinguishing Media: Aggregates Products are not flammable. Use extinguishing media appropriate for the surrounding fire.

Unsuitable Extinguishing Media: None

Fire Hazard: Not flammable

Explosive Hazard: Not explosive under normal use. Contact with powerful oxidizing agents may cause fire and/or explosives. (See Section 10 of SDS)

Reactivity: Hazardous reactions not expected under normal use. (See Section 10 of SDS for Incompatible Materials)

Precautionary Measures for Fire: Exercise caution when fighting any fire.

Protection During Firefighting: Do not enter any fire area without proper full protective equipment

Section 6 – Accidental Release Measures

Personal Precautions, Protective Equipment, and Emergency Procedures

Protective Equipment: Emergency responders/clean-up crew must be equipped with and use appropriate personal protective equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel. Contain spill. Wet product should be removed from roads or other surfaces where it may interfere with traffic. Avoid generating dust.

Environmental Precautions

Prevent entry into sewers or drainage systems where material can harden and clog/restrict flow and increase TSS.

Methods and Material for Containment and Cleaning up

For Containment: Contain and collect as any solid. Avoid generation and breathing of dust.

Methods for Cleaning up: If materials is spilled and generates dust, cleanup personnel may be exposed to respirable crystalline silica. Avoid dry sweeping or use of air for clean up. Wet the material and/or use ventilation or respiratory protection as necessary. Material from clean up should be collected and placed in a suitable container for disposal.

See Section 8 of SDS for information related to Exposure Controls and Personal Protection.

Section 7 – Handling and Storage

Precautions for Safe Handling

Do not handle until all safety precautions have been read and understood. Keep formation of airborne dust to a minimum. Provide appropriate exhaust ventilation at places where dust is formed. Do not breathe dust. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment (PPE).

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Do not store near food and beverages or smoking materials. 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: Store in a well-ventilated area away from sources of incompatible products.

Incompatible Products: Contact with strong oxidizers such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, and oxygen difluoride may cause fire and/or explosions. Material may react with hydrofluoric acid to produce a corrosive gas (silicon tetrafluoride).

Section 8 – Exposure Controls/Personal Protection

Control Parameters

Quartz (14808-60-7) (crystalline silica)		
ACGIH	ACGIH TLV-TWA (mg/m ³)	0.025 mg/m ³ (Respirable fraction)
NIOSH	NIOSH REL (TWA) (mg/m ³)	0.05 mg/m ³ (Respirable dust)
OSHA	OSHA PEL (TWA) (mg/m ³)	0.1 mg/m ³ (Respirable dust) 0.3 mg/m ³ (Total dust)
MSHA	MSHA PEL (mg/m ³)	10 mg/m ³ ÷ (% silica + 2) (Respirable dust) 30 mg/m ³ ÷ (% silica + 3) (Total dust)

NOTE: The OSHA/MSHA PEL for crystalline silica as tridymite and cristobalite is one-half the PEL for crystalline silica (quartz). The ACGIH TLV for crystalline silica as cristobalite is equal to the TLV for crystalline silica as quartz.

Section 8 – Exposure Controls/Personal Protection (continued)

Limestone (Calcium Carbonate) (1317-65-3)		
ACGIH	ACGIH TLV-TWA (mg/m ³)	10 mg/m ³ (Total dust as calcium carbonate)
NIOSH	NIOSH REL (TWA) (mg/m ³)	5 mg/m ³ (Respirable fraction) 10 mg/m ³ (Total dust)
OSHA	OSHA PEL (mg/m ³)	5 mg/m ³ (Respirable fraction) 15 mg/m ³ (Total dust)
MSHA	MSHA PEL (mg/m ³)	5 mg/m ³ (Respirable fraction) 10 mg/m ³ (Total dust)

Particulates not otherwise regulated (PNOR) (RR-00072-6)		
ACGIH	ACGIH TLV-TWA (mg/m ³)	3 mg/m ³ (Respirable fraction) 10 mg/m ³ (Total dust)
OSHA	OSHA PEL (mg/m ³)	5 mg/m ³ (Respirable fraction) 15 mg/m ³ (Total dust)

Exposure Controls

Appropriate Engineering Controls:

Utilize general ventilation, local ventilation, and/or wet suppression as needed to control airborne dust concentrations below allowable exposure limits.

Personal Protective Equipment:



Eye Protection:

Wear safety glasses with side shields as minimum protection from blowing dust. Dust goggles should be worn when excessively (visible) dusty conditions are present or anticipated.

Hand Protection:

Use appropriate protective gloves if manually handling product.

Skin and Body Protection:

Normal work clothing (long sleeve shirt and long pants) should be worn to prevent skin contact. Wash work clothes after each use. Wash dust exposed skin with soap and water thoroughly after handling.

Respiratory Protection:

When exposed or likely to be exposed to dust above allowable exposure limits, wear a suitable NIOSH-approved respirator with a protection factor appropriate for the level of exposure. Seek guidance from a qualified industrial hygienist, safety professional, or other suitably knowledgeable individual prior to respirator selection and use. Respirator use must comply with applicable MSHA or OSHA standards, which include provisions for a user training program, respirator repair and cleaning, respirator fit testing, medical surveillance and other requirements.

Other:

Respirable dust and quartz levels should be monitored regularly. Exposures in excess of allowable 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.

Environmental Exposure Controls:

Prevent entry into sewers or drainage systems where material can harden and clog/restrict flow.

Consumer Exposure Controls:

Do not eat, drink, or smoke when manually handling this product.

Section 9 – Physical and Chemical Properties

Information on Basic Physical and Chemical Properties

Physical State : Solid	Appearance: Granular white, gray, tan, brown, and/or reddish particles ranging in size from powder to boulders.	Odor : Odorless	pH : Not applicable
Evaporation Rate : Not applicable	Melting Point : Not applicable	Freezing Point : Not applicable	Boiling Point : Not applicable
Flash Point : Not applicable	Auto-ignition Temperature : Not applicable	Decomposition Temperature : Not applicable	Flammability (solid/gas) : Not applicable
Vapor Pressure : Not applicable	Vapor Density : Not applicable	Specific Gravity : 2.45 – 2.85	Solubility : Water : 0

Other Information : None

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 (see below and Section 5 and Section 7 for more information).

Incompatible Materials:

Contact with strong oxidizers such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, and oxygen difluoride may cause fire and/or explosions. Material may react with hydrofluoric acid to produce a corrosive gas (silicon tetrafluoride).

Hazardous Decomposition Products: None Known

Section 11 – Toxicological Information

Information on Toxicological Effects

Acute Toxicity: Not Classified

Quartz (14808-60-7)	
LD50 Oral Rat	>5000 mg/kg
LD 50 Dermal Rat	>5000 mg/kg

Potential Health Effects: Skin corrosion/irritation: May cause skin irritation.

Potential Health Effects: Eye Damage/Irritation: May cause eye irritation.

Potential Health Effects: Ingestion: This product can cause gastrointestinal irritation including nausea, vomiting, diarrhea, and blockage if large quantities are ingested.

Potential Health Effects: Inhalation: May cause respiratory irritation.

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Carcinogenicity: May cause cancer (inhalation).

Quartz (14808-60-7)	
IARC Group	1
National Toxicity Program (NTP) Status	Known Human Carcinogen
ACGIH	Suspected Human Carcinogen (A-2)

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): May cause respiratory irritation.

Section 11 – Toxicological Information (continued)

Specific Target Organ Toxicity (Repeated Exposure): Causes damage to organs (lung/respiratory system) through prolonged or repeated exposure (Inhalation). Prolonged overexposure to respirable crystalline silica dust above the allowable limits can cause pneumoconiosis (lung disease) known as silicosis.

Repeated and prolonged exposure inhalation of respirable crystalline silica-containing dust in excess of allowable limits may cause a chronic silicosis, an incurable lung disease that may result in permanent lung damage or death. Chronic silicosis may occur after 10 years or more of overexposure; accelerated silicosis may occur between 5 and 10 years of higher levels of exposure. Symptoms of silicosis may include, but are not limited to: 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. Persons with silicosis have an increased risk of pulmonary tuberculosis infection. Not all individuals will exhibit symptoms in the early stages of silicosis.

Repeated and prolonged overexposures to very high levels of respirable crystalline silica for periods as short as six months may cause acute silicosis. Acute silicosis is a rapidly progressive, incurable lung disease that is typically fatal. Symptoms include, but are not limited to: shortness of breath, cough, fever, weight loss, and chest pain.

Pre-existing medical conditions that may be aggravated by exposure include disorders of the eye, skin and lung (including asthma and other breathing disorders). There are reports in the literature suggesting that excessive crystalline silica exposure may be associated with adverse health effects involving the kidney, scleroderma (thickening of the skin caused by swelling and thickening of fibrous tissue) and other autoimmune disorders. However, to date, this evidence does not conclusively prove a causal relationship between silica or silicosis and these adverse health effects. Smoking tobacco will impair the ability of the lungs to clear themselves of dust.

Aspiration Hazard : Not classified

Chronic Symptoms: Repeated or prolonged inhalation may damage lungs. May cause cancer.

Section 12 – Ecological Information

Toxicity: No information available for the product

Persistence and Degradability: No information available for the product

Bioaccumulative Potential: No information available for the product

Mobility in Soil: No information available for the product

Section 13 – Disposal Considerations

Waste Disposal Recommendations: Place waste in appropriate containers. Dispose of waste in accordance with all local, regional, state, and federal regulations.

Ecology – Waste Materials: Avoid release to environment – prevent entry into drains and sewers

Section 14 – Transport Information

In Accordance with DOT: Not regulated

In Accordance with IMDG: Not regulated

In Accordance with IATA: Not regulated

Section 15 - Regulatory Information

US Federal Regulations

Aggregates Products	
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard Immediate (acute) health hazard
Quartz (14808-60-7)	
Listed on the United States TSCA (Toxic Substances Control Act) Inventory	
Limestone (1317-65-3) (Calcium Carbonate)	
Listed on the United States TSCA (Toxic Substances Control Act) Inventory	

Section 15 – Regulatory Information (continued)

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.

Quartz (14808-60-7)
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) (Calcium Carbonate)
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

Section 16 – Other Information

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DISCLAIMER:

The information contained in this Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process. The information set forth herein is based on technical data that the Company believes to be accurate. It is intended for use by persons having technical skill and at their own discretion and risk. Since conditions of use are outside the Company's control, the Company makes no warranties, expressed or implied, and assumes no liability in connection with any use of this information. All applicable laws, rules and regulations should be reviewed prior to use.