




Scotty's Contracting & Stone, LLC

SAFETY DATA SHEET for LIMESTONE

1. Identification	
Product Name: Limestone	
Common Names: Lime, Crushed Stone, Ag-lime, Aggregate, Rock	
Recommended use: Limestone is used in the manufacture of bricks, mortar, cement, concrete, plasters, paving materials, other construction materials, steel, consumer products, and other goods. Limestone aggregate may be distributed in bags, totes, and bulk shipments.	
Manufacturer's Name: Scotty's Contracting & Stone, LLC	24 Hour Emergency Telephone Number: Call CHEMTREC Day or Night 1-800-424-9300
Address: 2300 Barren River Road Bowling Green, KY 42102	Telephone Number for Information: 270-781-3998 ext. 227 Internet Web Site: www.scottyscontracting.com

2. Hazard(s) Identification	
Physical hazards: Not Classified	Health hazards: Carcinogenicity-Category 1A Specific target organ toxicity, repeated exposure-Category 2
	Signal word: Danger
	Hazard statement May cause cancer. May cause damage to organs (lung) through prolonged or repeated exposure. Causes skin irritation Causes serious eye irritation

Precautionary statement:**Prevention**

- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection.

Response

- If exposed or concerned: Get medical advice/attention

Disposal

- Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental information:

Respirable Crystalline Silica (RCS) may cause cancer. Limestone is a naturally occurring mineral complex that contains varying quantities of quartz (crystalline silica). In its natural bulk state, limestone is not a known health hazard. Limestone 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 processes.

3. Composition/information on ingredients

Chemical name	CAS number	%
Mixtures		
Limestone	1317-65-3	100
Crystalline Silica (Quartz)	14808-60-7	>0.1

4. First-aid measures

Inhalation: Limestone dust: Move to fresh air. Call a physician if symptoms develop or persist.

Eyes: Limestone dust: Immediately flush with plenty of water for at least 15 minutes. Hold eyelids apart. Occasionally lift the eyelid(s) to ensure thorough rinsing. Beyond flushing, do not attempt to remove material from the eye(s). Get medical attention if irritation develops or persists.

Skin: Limestone dust: Wash off with soap and water. Get medical attention if irritation develops and persists.

Ingestion: Limestone dust: Rinse mouth and drink plenty of water. Never give anything by mouth to an unconscious person. Get medical attention.

Most important symptoms/effects, acute and delayed: Inhaling dust may cause discomfort in the chest, shortness of breath, and coughing. Prolonged inhalation may cause chronic health effects. This product contains crystalline silica. 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.

Indication of immediate medical attention and special treatment needed:

Not all individuals with silicosis will exhibit symptoms of the disease. However, silicosis can be progressive and symptoms can appear even years after exposures have ceased. Persons with silicosis have an increased risk of pulmonary tuberculosis infection.

5. Fire-fighting measures
Suitable extinguishing media: Not flammable. Use fire-extinguishing media appropriate for surrounding materials.
Unsuitable extinguishing media: None known.
Specific hazards arising from the chemical: No unusual fire or explosion hazards noted. Not a combustible dust.
Special protective equipment and precautions for firefighters: Use protective equipment appropriate for surrounding materials. No specific precautions.
General Fire Hazards: Contact with powerful oxidizing agents may cause fire and/or explosions (see section 10 of SDS). No unusual fire or explosion hazards.

6. Accidental release measures
Personal precautions, protective equipment and emergency procedures: Persons involved in cleanup processes should first observe precautions (as appropriate) identified in Section 8 of this SDS.
Environmental precautions: Prevent from entering into sewers or drainage systems where it can harden and clog flow.
Methods and materials for containment and cleaning up: Spilled material, where dust is generated, may overexpose cleanup personnel to respirable crystalline silica-containing dust. Do not dry sweep or use compressed air for clean-up. Wetting of spilled material and/or use of respiratory protective equipment may be necessary.

7. Handling and storage
Precautions for safe handling: Respirable crystalline silica-containing dust may be generated during processing, handling, and storage. Use personal protection and controls identified in Section 8 of this SDS as appropriate.
Advice on general occupational hygiene: Observe good industrial hygiene practices. Promptly remove dusty clothing and launder before reuse.
Conditions for safe storage, including an incompatibilities: Do not store near food, beverages, or smoking materials.

8. Exposure controls/personal protection
Occupational exposure limits: 1 –Value equivalent to OSHA formulas (29 CFR 1910.1000; 29 CFR 1917; 29 CFR 1918) 2 –Value also applies to MSHA metal/Non-Metal (1973 TLVs at 30 CFR 56/57.5001) 3 –OSHA enforces 0.250 mg/m ³ in construction and shipyards (CPL-03-00-007) 4 –Value also applies to OSHA construction(29 CFR 1926.55 Appendix A) and shipyards (29 CFR 1915.1000 Table Z)

5-MSHA limit = 10 mg/m ³	
Ingredient name	Exposure limits
Particulates not otherwise classified (CAS SEQ250)	ACGIH TLV (United States, 3/2012) TWA: 3 mg/m ³ . Form: Respirable particles (2) TWA: 10 mg/m ³ . Form: Inhalable particles (2) OSHA PEL (United States, 6/2010) PEL: 5mg/m ³ . Form: Respirable fraction PEL: 15 mg/m ³ . Form: Total dust(4) TWA: 5mg/m ³ . Form: Respirable fraction (1) TWA: 15mg/m ³ . Form: Total dust (1, 4, 5)
Limestone (Calcium Carbonate) (CAS 1317-65-3)	OSHA PEL (United States, 6/2010) TWA: 5mg/m ³ . Form: Respirable fraction (4) TWA: 15 mg/m ³ . Form: Total dust (5) NIOSH REL (United States, 6/2009) TWA: 5mg/m ³ . Form: Respirable fraction TWA: 10 mg/m ³ . Form: Total dust
Crystalline Silica (Quartz) (CAS 14808-60-7)	OSHA PEL (United States, 9/2017) TWA: 0.3 mg/m ³ . Form: Total dust (1,2) TWA: 0.05mg/m ³ . Form: Respirable (1,2,3) ACGIH TLV (United States, 3/2012) TWA: 0.025 mg/m ³ . Form: Respirable fraction NIOSH REL (United States, 6/2009) TWA: 0.05 mg/m ³ .Form: Respirable dust
Appropriate Engineering Controls: Good general ventilation (typically 10 air changes per hour indoors) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.	
Exposure Guidelines: Total dust containing silica, respirable silica-containing dust and respirable crystalline silica (quartz) levels should be monitored regularly to determine worker exposure levels. Exposure levels 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 workstations.	
Engineering Controls: Activities that generate dust require the use of general ventilation, local exhaust and/or wet suppression methods to maintain exposures below allowable exposure limits.	
Biological Limit Values: No biological exposure limits noted for the ingredient(s)	
Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely washwork clothing and protective equipment to remove contaminants.	
Eye/face protection: Wear safety glasses with side shields (or goggles). Hand protection: Use personal protective equipment as required. Body protection: Use personal protective equipment as required. Other skin protection: Use personal protective equipment as required.	

Respiratory protection: When handling or performing work that produces dust or respirable crystalline silica in excess of applicable exposure limits, wear a NIOSH-approved respirator that is properly fitted and is in good condition. Respirators must be used in accordance with all applicable workplace regulations.
Thermal hazards: Not anticipated. Wear appropriate thermal protective clothing if necessary

9. Physical and chemical properties

Appearance:

Angular gray, white and tan particles ranging in size from powder to boulders.

Odor: No odor.	PH: Not applicable	Decomposition temperature: Not applicable
Melting point/freezing point: Not applicable	Initial boiling point and boiling range: Not applicable	Flash point: Non-combustible
Evaporation rate: Not applicable	Flammability: Not applicable	Upper/lower flammability or explosive limits: Not applicable
Vapor pressure: Not applicable	Vapor density: Not applicable	Solubility: 0
Partition coefficient: n-octanol/water. Not applicable	Autoignition temperature: Not applicable	Specific Gravity (H₂O = 1): 2.4 - 2.85

10. Stability and reactivity

Reactivity:

Not reactive under normal use.

Chemical stability:

Stable under normal temperatures and pressures.

Possibility of hazardous reactions:

None under normal use.

Conditions to avoid (e.g., static discharge, shock or vibration):

Contact with incompatible materials should be avoided (see below). See Sections 5 and 7 for additional information.

Incompatible materials:

Silica ignites on contact with fluorine and is incompatible with acids, aluminum, ammonium salts and magnesium. Silica reacts violently with powerful oxidizing agents such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, and oxygen difluoride yielding possible fire and/or explosions. Silica dissolves readily in hydrofluoric acid producing a corrosive gas – silicon tetrafluoride.

Hazardous decomposition products:

Respirable crystalline silica-containing dust may be generated. When heated, quartz is slowly transformed into tridymite (above 860°C/1580°F) and cristobalite (above 1470°C/2678°F). Both tridymite and cristobalite are other forms of crystalline silica.

11. Toxicological information

Primary Routes of Exposure:

Inhalation and contact with the eyes and skin.

Symptoms related to the physical, chemical, toxicological characteristics Inhalation:

Dusts may irritate the nose, throat and respiratory tract by mechanical abrasion. Coughing sneezing and shortness of breath may occur.

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.

Eye Contact:

Dust particles can scratch the eye causing tearing, redness, a stinging or burning feeling, or swelling of the eyes with blurred vision.

Skin Contact:

Dust particles can scratch and irritate the skin with redness, an itching or burning feeling, swelling of the skin, and/or rash.

Ingestion:

Expected to be practically non-toxic. Ingestion of large amounts may cause gastrointestinal irritation including nausea, vomiting, diarrhea, and blockage.

Medical Conditions Aggravated by Exposure:

Irritated or broken skin increases chance of contact dermatitis. Pre-existing medical conditions that may be aggravated by exposure include disorders of the eye, skin and lung (including asthma and other breathing disorders). Smoking tobacco will impair the ability of the lungs to clear themselves of dust.

Delayed and immediate effects and also chronic effects from short-and long-term exposure:

Prolonged overexposure to respirable dusts in excess of allowable exposure limits can cause inflammation of the lungs leading to possible fibrotic changes, a medical condition known as pneumoconiosis.

Prolonged and repeated overexposure to high levels of respirable crystalline silica-containing dust may cause a chronic form of silicosis, an incurable lung disease that may result in permanent lung damage or death. Chronic silicosis generally occurs after 10 years or more of overexposure; a more accelerated type of silicosis may occur between 5 and 10 years of higher levels of prolonged and repeated overexposure. In early stages of silicosis, not all individuals will exhibit symptoms (signs) of the disease. However, silicosis can be progressive, and symptoms can appear at any time, even years after exposure has ceased.

Repeated 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.

Respirable dust containing newly broken crystalline silica particles has been shown to be more hazardous to animals in laboratory tests than respirable dust containing older crystalline silica particles of similar size.

Respirable crystalline silica particles which had aged for sixty days or more showed less lung injury in animals than equal exposures to respirable dust containing newly broken particles of respirable crystalline silica.

There are reports in the literature suggesting that excessive respirable crystalline silica exposure may be associated with autoimmune disorders and other adverse health effects involving the kidney. In particular, the incidence of scleroderma (thickening of the skin caused

by swelling and thickening of fibrous tissue) appears to be higher in silicotic individuals. To date, the evidence does not conclusively determine a causal relationship between silica exposure and these adverse health effects.

Carcinogenicity:

Epidemiology studies on the association between respirable crystalline silica exposure and lung cancer have had both positive and negative results. There is some speculation that the source, type, and level of exposure of respirable crystalline silica may play a role. Studies of persons with silicosis indicate an increased risk of developing lung cancer, a risk that increases with the level and duration of exposure. It is not clear whether lung cancer develops in non-silicotic patients. Several studies of silicotics do not account for lung cancer confounders, especially smoking, which have been shown to increase the risk of developing lung disorders, including emphysema and lung cancer.

In October 1996, an IARC Working Group designated respirable crystalline silica as carcinogenic (Group 1). In 2012, an IARC Working Group re-affirmed that inhalation of crystalline silica was a known human carcinogen. The NTP's Report on Carcinogens, 9th edition, lists respirable crystalline silica as a "known human carcinogen." In the year 2000, the American Conference of Governmental Industrial Hygienists (ACGIH) listed respirable crystalline silica (quartz) as a suspected human carcinogen (A-2). These classifications are based on sufficient evidence of carcinogenicity in certain experimental animals and on selected epidemiological studies of workers exposed to respirable crystalline silica.

Additional information on toxicological-effects:

Acute toxicity: Not classified

No specific data on product. Limestone (calcium carbonate CAS# 471-34-1) has oral LD50 (rats) = 6450 mg/kg.)

Skin corrosion/irritation: Not classified

Serious eye damage/eye irritation: Not classified

Respiratory sensitization: Not classified.

Skin sensitization: Not classified.

Germ cell Mutagenicity: Not classified

Carcinogenicity: May cause cancer (Inhalation).

Reproductive toxicity: Not classified.

Specific target organ toxicity-single exposure: Not classified

Specific target organ-toxicity –repeated exposure:

Causes damage to organs (lungs, respiratory system) through prolonged or repeated exposure (inhalation)

Aspiration toxicity: Not classified (not applicable-solid material)

12. Ecological information

Ecotoxicity (aquatic and terrestrial, where available): Not determined
Persistence and degradability: Not determined
Bioaccumulative potential: Not determined
Mobility in soil: Not determined
Other adverse effects: Not determined

13. Disposal considerations
Safe handling and disposal of waste: Place contaminated materials in appropriate containers and dispose of in a manner consistent with applicable federal, state, and local regulations. Prevent from entering drainage, sewer systems, and unintended bodies of water. It is the responsibility of the user to determine, at the time of disposal, whether product meets criteria for hazardous waste. Product uses, transformations, mixture and processes, may render the resulting material hazardous.

14. Transport information
UN Number: Not regulated.
UN Proper shipping name: Not regulated.
Transport Hazard class: Not applicable.
Packing group, if applicable: Not applicable.
Marine pollutant (Yes/No): Not applicable.

15. Regulatory information
Toxic Substances Control Act (TSCA): The components in this product are listed on the TSCA Inventory or are exempt.
Comprehensive Environmental Response, Compensation and Liability Act (CERCLA): Releases of this material to water may be reportable to the National Response Center under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or to state and local emergency planning committees under the Superfund Amendments and Reauthorization Act. (See Section 6)
Superfund Amendments and Reauthorization Act of 1986 (SARA), Title III: <u>Section 302 extremely hazardous substances:</u> None <u>Section 311/312 hazard categories:</u> Delayed Health <u>Section 313 reportable ingredients at or above de minimus concentrations:</u> None

California Proposition 65:

This product contains a chemical (crystalline silica) known to the State of California to cause cancer.

State Regulatory Lists:

Each state may promulgate standards more stringent than the federal government. This section cannot encompass an inclusive list or all state regulations. Therefore, the user should review the components listed in Section 2 and consult state or local authorities for specific regulations that apply.

16. Other information

Disclaimer

NO WARRANTY IS MADE, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE.

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