



1. Identification

Product identifier: Limestone

Other means of identification:

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.

Recommended restrictions: None known

Manufacturer/Importer/Supplier/Distributor information

Company: Pike Industries, Inc.
Address: 3 Easgate Park Rd. Belmont NH, 03220
Telephone: (603) 527-5100
Website:
Emergency phone number: 1-800-424-9300 (Chemtrec)

2. Hazard(s) identification

Physical hazards Health Hazards: Not classified. Carcinogenicity
Specific Target Organ Toxicity,

Repeated Exposure

OSHA defined hazards: Not classified.

Label elements:



Signal word: Danger

Hazard Statements: May cause cancer. May cause damage to organs (lung) through prolonged or repeated exposure.

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.

Storage: Restrict or control access to stockpile areas. Engulfment hazard: To prevent burial or suffocation, do not enter a confined space, such as a silo, bulk truck or other storage container or vessel that stores or contains aggregates without an effective procedure for assuring safety.

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

Hazard(s) not otherwise classified

(HNOC): None known.

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

Mixtures Chemical name CAS number %

Calcium Carbonate	1317-65-3 > 50
Crystalline Silica (Quartz)	14808-60-7 > 0.1

4. First-aid measures Inhalation Skin contact

Eye contact:	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.
Inhalation:	Limestone dust: Move to fresh air. Call a physician if symptoms develop or persist.
Skin Contact:	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. Prolonged or repeated inhalation of respirable crystalline silica liberated from this product can cause silicosis, and may cause cancer.

Indication of immediate medical attention and special treatment needed

Notes to physician:	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
Specific treatments:	Not Applicable
Protection of first-aiders:	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.
General information:	Pre-existing medical conditions that may be aggravated by exposure include disorders of the eye, skin and lung (including asthma and other breathing disorders). If addicted to tobacco, smoking will impair the ability of the lungs to clear themselves of dust.

5. Fire-fighting measures

Suitable extinguishing media:	Limestone is 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:	None Known
Firefighting equipment/instructions	
Specific methods:	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 noted.

6. Accidental release measures

Personal precautions, and emergency procedures

Wear appropriate protective equipment and clothing during clean-up of materials that contain or may liberate limestone dust.

Methods and materials for containment and cleaning up Environmental precautions

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

Protective measures: Do not handle until all safety precautions have been read and understood. Keep formation of airborne dusts 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.

Advice on general occupational hygiene: Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities: Avoid dust formation or accumulation.

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/m³ 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/m³.

Components Type Value Form

Ingredient name	Type	Exposure limits
<i>Calcium Carbonate (CAS 1317-65-3)</i>		OSHA PEL (United States, 6/2010) TWA: 5 mg/m ³ . Form: Respirable fraction (4) TWA: 15 mg/m ³ . Form: Total dust (5) NIOSH REL (United States, 6/2009) TWA: 5 mg/m ³ . Form: Respirable fraction TWA: 10 mg/m ³ . Form: Total dust
<i>Tridymite and Cristobalite (other forms of crystalline silica) (CAS Mixture)</i>		OSHA PEL (United States, 6/2010) TWA: 0.15 mg/m ³ . Form: Total dust (1) TWA: 0.05 mg/m ³ . Form: Respirable (1,2)
<i>Crystalline Silica (all forms; CAS mixture)</i>		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
<i>Crystalline Silica (Quartz) (CAS 14808-60-7)</i>		OSHA PEL (United States, 6/2010) TWA: 0.3 mg/m ³ . Form: Total dust (1,2) TWA: 0.1 mg/m ³ . Form: Respirable (1,2,3)
<i>Particulates not otherwise classified (CAS SEQ250)</i>		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: 5 mg/m ³ . Form: Respirable fraction PEL: 15 mg/m ³ . Form: Total dust (4) TWA: 5 mg/m ³ . Form: Respirable fraction (1) TWA: 15 mg/m ³ . Form: Total dust (1, 4, 5)



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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:

OSHA PELs, MSHA PELs, and ACGIH TLVs are 8-hr TWA values. NIOSH RELs are for TWA exposures up to 10-hr/day and 40-hr/wk. Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled. Terms including "Particulates Not Otherwise Classified," "Particulates Not Otherwise Regulated," "Particulates Not Otherwise Specified," and "Inert or Nuisance Dust" are often used interchangeably; however, the user should review each agency's terminology for differences in meanings.

Biological limit values:

No biological exposure limits noted for the ingredient(s).

Individual protection measures, such as personal protective equipment**General hygiene:**

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Eye/face protection:

Wear safety glasses with side shields (or goggles).

Other Skin protection:

Use personal protective equipment as required

Hand protection:

Use personal protective equipment as required

Respiratory protection:

When handling or performing work with limestone 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, when necessary.

9. Physical and chemical properties

Appearance

Physical state:	Solid.	Flammability limit – lower (%):	Not applicable
Form:	Solid, particles	Flammability limit – upper (%):	Not applicable
Color:	Varies	Vapor pressure:	Not applicable
Odor:	Not applicable	Vapor density:	Not applicable
Odor threshold:	Not applicable	Relative density:	Not applicable
pH:	Not applicable	Solubility(ies):	Insoluble
Melting point/freezing point:	Not applicable	Solubility (water):	Not applicable
Initial boiling point and boiling range:	Not applicable	Partition coefficient (n-octanol/water):	Not applicable
Flash point:	Non-combustible	Auto-ignition temperature:	Not applicable
Evaporation rate:	Not applicable	Decomposition temperature:	Not applicable
Flammability (solid, gas):	Not applicable	Viscosity:	Not applicable
Upper/lower flammability or explosive limits:	Not applicable		



10. Stability and reactivity

- Reactivity:** The product is stable and non-reactive under normal conditions of use, storage and transport.
- Chemical stability:** Material is stable under normal conditions.
- Possibility of hazardous reactions:** No dangerous reaction known under conditions of normal use.
- Conditions to avoid:**
- Incompatible materials:**
- Hazardous decomposition products:**

11. Toxicological information

Information on toxicological effects

- Acute toxicity:** Not expected to be acutely toxic.
- Skin corrosion/irritation:** **Skin contact:** Limestone dust: May cause irritation through mechanical abrasion.
Eye contact: Limestone dust: May cause irritation through mechanical abrasion.
Inhalation: Repeated inhalation of respirable crystalline silica (quartz) may cause silicosis, a fibrosis (scarring) of the lungs. Silicosis is irreversible and may be fatal. Silicosis increases the risk of contracting pulmonary tuberculosis. Some studies suggest that repeated inhalation of respirable crystalline silica may cause other adverse health effects including lung and kidney cancer.
Ingestion: Not likely, due to the form of the product. However, accidental ingestion of the content may cause discomfort.
- Respiratory or skin sensitization:** **Respiratory sensitization:** No respiratory sensitizing effects known.
Skin sensitization: Not known to be a dermal irritant or sensitizer.
- Germ cell mutagenicity:** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
- Reproductive toxicity:** Not expected to be a reproductive hazard.
- Symptoms related to the physical, chemical and toxicological characteristics:** Limestone dust: Discomfort in the chest. Shortness of breath. Coughing.
- Carcinogenicity:** Respirable crystalline silica has been classified by IARC and NTP as a known human carcinogen, and classified by ACGIH as a suspected human carcinogen.

Product/ingredient name	OSHA	IARC	ACGIH	NTP
Crystalline Silica (Quartz) CAS 14808-60-7)	Not listed	1 Carcinogenic to humans	A2	Known to be human Carcinogen
Respirable Tridymite and Cristobalite (Other forms of Crystalline) (CAS Mixture)	Not listed	1 Carcinogenic to humans		

Specific target organ toxicity (acute exposure)

Name	Category	Route of Exposure	Target Organs
Crystalline Silica (Quartz) CAS 14808-60-7) Respirable		Inhalation	Not reported to have effects
Tridymite and Cristobalite (Other forms of Crystalline) (CAS Mixture)		Inhalation	Not reported to have effects



Specific target organ toxicity (chronic exposure)

Name	Category	Route of Exposure	Target Organs
Crystalline Silica (Quartz) CAS 14808-60-7		Inhalation	May cause damage to organs (lung through prolonged or repeated exposure.
Respirable Tridymite and Cristobalite (Other forms of Crystalline) (CAS Mixture)		Inhalation	May cause damage to organs (lung through prolonged or repeated exposure

Potential chronic health effects: **General:** Prolonged inhalation of respirable crystalline silica may be harmful. May cause damage to organs (lungs) through prolonged or repeated exposure. There are reports in the literature suggesting that excessive 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.

12. Ecological information

Ecotoxicity

Not expected to be harmful to aquatic organisms. Discharging limestone dust and fines into waters may increase total suspended particulate (TSP) levels that can be harmful to certain aquatic organisms.

Persistence and degradability: Not applicable.

Bio-accumulative potential: Not applicable.

Mobility in soil: Not applicable.

Other adverse effects: No other adverse environmental effects (e.g., ozone depletion, photochemical ozone creation potential, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Do not allow fine particulate matter to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with fine particulates. Dispose of contents in accordance with local/regional/national/international regulations.

Hazardous waste code: Not regulated.

Waste from residues /unused products: Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging: Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty packaging materials should be recycled or disposed of in accordance with applicable regulations and practices

14. Transport information

	DOT	IMDG	IATA
UN number UN proper shipping name Transport hazard class(es) Packing Group Environmental hazards Additional Information	Not regulated as dangerous goods.	Not regulated as dangerous goods.	Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code



15. Regulatory information

US federal regulations:

OSHA Hazard Communication Standard, 29 CFR 1910.1200:

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification

(40 CFR 707, Subpt. D): Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4): Not listed.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List: Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130): Not regulated.

Safe Drinking Water Act (SDWA): Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA):

Hazard categories: Immediate Hazard -No Delayed Hazard -Yes
Fire Hazard -No Pressure Hazard -No
Reactivity Hazard -No

SARA 302 Extremely hazardous substance: Not listed.

SARA 311/312 Hazardous Yes chemical SARA 313 (TRI reporting): Not regulated.

US state regulations

US. Massachusetts RTK -Substance List: Crystalline Silica (Quartz) (CAS 14808-60-7) Respirable Tridymite and Cristobalite (other forms of crystalline silica) (CAS Mixture)

US. New Jersey Worker and Community Right-to-Know Act: Crystalline Silica (Quartz) (CAS 14808-60-7) Respirable Tridymite and Cristobalite (other forms of crystalline silica) (CAS Mixture)

US. Pennsylvania Worker and Community Right-to-Know Law: Crystalline Silica (Quartz) (CAS 14808-60-7) Respirable Tridymite and Cristobalite (other forms of crystalline silica) (CAS Mixture)

US. Rhode Island RTK: Not regulated.

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

US -California Proposition 65 -Carcinogens & Reproductive Toxicity (CRT): Listed substance: A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Crystalline Silica (Quartz) CAS 14808-60-7	Yes	No	No	No



16. Other information

Date of Issue: 5/18/16

Version: 5/18/16

Notice to reader

While the information provided in this safety data sheet is believed to provide a useful summary of the hazards of limestone as it is commonly used, the sheet cannot anticipate and provide all of the information that might be needed in every situation. Inexperienced product users should obtain proper training before using this product. In particular, the data furnished in this sheet do not address hazards that may be posed by other materials mixed with limestone to produce limestone products. Users should review other relevant material safety data sheets before working with this limestone or working on limestone products. SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE OR CONCERNING THE ACCURACY OF ANY INFORMATION PROVIDED BY Lehigh Hanson, except that the product shall conform to contracted specifications. The information provided herein was believed by the Lehigh Hanson to be accurate at the time of preparation or prepared from sources believed to be reliable, but it is the responsibility of the user to investigate and understand other pertinent sources of information to comply with all laws and procedures applicable to the safe handling and use of product and to determine the suitability of the product for its intended use. Buyer's exclusive remedy shall be for damages and no claim of any kind, whether as to product delivered or for non-delivery of product, and whether based on contract, breach of warranty, negligence, or otherwise shall be greater in amount than the purchase price of the quantity of product in respect of which damages are claimed. In no event shall Seller be liable for incidental or consequential damages, whether Buyer's claim is based on contract, breach of warranty, negligence or otherwise.

Abbreviations

ACGIH — American Conference of Governmental Industrial Hygienists
CAS — Chemical Abstract Service
CERCLA — Comprehensive Emergency Response and Comprehensive Liability Act
CFR — Code of Federal Regulations D
OT — Department of Transportation
GHS — Globally Harmonized System
HEPA — High Efficiency Particulate Air
IATA — International Air Transport Association
IARC — International Agency for Research on Cancer
IMDG — International Maritime Dangerous Goods
NIOSH — National Institute of Occupational Safety and Health
NOEC — No Observed Effect Concentration NTP —
National Toxicology Program
OSHA — Occupational Safety and Health Administration
PEL — Permissible Exposure Limit
REL — Recommended Exposure Limit
RQ — Reportable Quantity
SARA — Superfund Amendments and Reauthorization Act
SDS — Safety Data Sheet
TLV — Threshold Limit Value
TPQ — Threshold Planning Quantity
TSCA — Toxic Substances Control Act
TWA — Time-Weighted Average
UN — United Nations