

ROCK INDUSTRIES, INC.  
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I-IDENTIFICATION			
SYMBOLIC NAME Limestone	SYMBOLIC FORMULA Not Applicable	MOLECULAR WEIGHT Not Applicable	
COMMON NAME Crushed Stone			
COMPOSITION Aggregate, Aqlime, Burn Lime, Crystalline, Finishing Agent, Flexible Base, Manufactured Sand, Mineral Filler, Screenings		CAS IDENTIFICATION NO. None	
II-PRODUCT AND COMPONENT DATA			
COMPONENTS CHEMICAL NAME Limestone*	CAS NUMBER 1317-65-3	% (APPROX) 100	ACTION TOXICITY See Section VI
*Composition varies naturally-typically contains quartz (crystalline silica)	CAS NUMBER 14808-60-7	% > 1	
III-PHYSICAL DATA			
APPEARANCE AND ODOR Angular gray, white and tan particles ranging in size from powder to boulders. No odor.	DENSITY 2.5 - 2.65	VAPOR DENSITY (AIR = 1) Not Applicable	
SOLUBILITY Not Applicable	% VOLATILE, BY VOLUME 0%		
EVAPORATION RATE 0	SOLUBILITY IN WATER 0		
IV-REACTIVITY DATA			
STABILITY Stable	CONDITIONS TO AVOID None known		
POLYMERIZABILITY (HARDENING BY HEAT) None known			
HAZARDOUS DECOMPOSITION PRODUCTS Silica-containing respirable dust particles may be generated by handling.			
TOXICITY POLYMERIZATION Not known to polymerize.			

VII-STORAGE AND HANDLING PRECAUTIONS	
Respirable dust may be generated during processing, handling, and storage. The controls identified in Section VII of the MSDS should be applied as appropriate.	
IX-SPILL, LEAK AND DISPOSAL PRACTICES	
The controls identified in Section VII of the MSDS should be applied as appropriate. Spilled materials, where dust can be generated, may overexpose cleanup personnel to respirable dust. Wetting of spilled material and/or use of respiratory protective equipment may be necessary. Avoid dry sweeping. None of the components in this product are subject to the reporting requirements of Title III of SARA, 1980, and 40 CFR 372.	
Pickup and reuse clean materials. Dispose of waste materials only in accordance with applicable federal, state, and local laws and regulations.	
X-TRANSPORTATION	
HAZARD CLASSIFICATION None	
PACKAGING REQUIREMENTS None	
LABEL REQUIREMENTS Label as required by the OSHA Hazard Communication standard (29 CFR § 1910.1200 (f)), and applicable state and local regulations.	
For Further Information	
DATE OF REVISION: June 1, 1989	

Chronic exposure to respirable limestone dust in excess of appropriate exposure limits has caused pneumoconiosis (lung disease).

Chronic exposure to respirable quartz-containing limestone dust in excess of appropriate exposure limits has caused silicosis, a progressive pneumoconiosis. Chronic tobacco smoking may further increase the risk of developing chronic lung problems.

Symptoms of Silicosis: Not all individuals with silicosis will exhibit symptoms (signs) of the disease. However, silicosis is progressive, and symptoms can appear at any time, even years after exposure has ceased. 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.

Limestone is not listed on the NTP, IARC, or OSHA list of carcinogens. Crystalline silica, a component of this product, is listed by IARC but not by NTP or OSHA. IARC has determined that there is sufficient evidence for carcinogenicity to experimental animals exposed to crystalline silica and limited evidence for carcinogenicity to humans. "Limited evidence" means that a causal relationship is possible; however, other explanations such as chance, bias or confounding factors cannot adequately be excluded. NTP has proposed (1989) to list crystalline silica based on the IARC determination.

V-FIRE AND EXPLOSION HAZARD DATA	
FLAMMABLE (MESH TEST) Not flammable	FLAMMABLE LIMIT IN AIR Not flammable
EXTINGUISHING MEDIA None required	
HAZARDOUS POLYMERIZATION REACTIONS None known	

VI-TOXICITY AND FIRST AID	
EXPOSURE LIMITS (based on 8 hr TWA) (unless specified otherwise, limits are expressed as milligrams of substance per cubic meter of air (mg/m <sup>3</sup> ), unless otherwise specified): Respirable crystalline silica (quartz): ACGIH TLV & OSHA PEL and MSHA proposed PEL = 0.1. Respirable dust: MSHA = 10 (5 respirable quartz = 2). Total dust: MSHA = 20 = (5 respirable). Limestone (calcium carbonate): ACGIH TLV and MSHA = 10 (total dust); OSHA PEL = 5 (respirable dust), 15 (total dust). Other particulates: ACGIH TLV = 10 (total particulates, not otherwise classified); OSHA PEL = 5 (respirable dust, not otherwise classified), 15 (total dust, not otherwise regulated); MSHA = 10 (total "respirable" dust); MSHA proposed = 5 (respirable mine dust). Doses exceeded in this section are subject to the same 4 exposure criteria as in the above respiratory TWA. Exposure of the skin (any) to individual components, when necessary, may not be sufficient to elicit irritation to all persons and areas with individual specific sensitivities.	
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Respirable crystalline silica may aggravate existing respiratory system disease(s) and/or dysfunction. Exposure to dust may aggravate existing skin irritant eye conditions.	
PRIMARY ROUTES OF EXPOSURE: <input type="checkbox"/> Inhalation <input type="checkbox"/> Skin <input type="checkbox"/> Ingestion	
ACUTE TOXICITY Exposure to dust may irritate respiratory system, eyes, and skin.	
FIRST AID Dust in eyes: Flush eyes with running water for 15 minutes. Contact a physician if irritation persists or later develops. Dust on previously irritated skin: Wash with soap and water. Contact a physician if irritation is aggravated. Dust Inhalation: Remove to fresh air. Dust in throat and nasal passages should clear spontaneously. Contact a physician if irritation persists or later develops.	

VII-PERSONAL PROTECTION AND CONTROLS	
DUST PROTECTION OSHA/MSHA approved dust respirator for conditions where dust levels exceed or are likely to exceed appropriate exposure limits. Respirator use must comply with applicable MSHA or OSHA standards, but include provisions for a user training program, respirator repair and cleaning, respirator fit testing, and other requirements.	
EXHAUST All exhaust or general ventilation adequate to maintain exposures below appropriate exposure limits.	
HYGIENE "Hygiene" section below.	
EYES Eye glasses with side shields should be worn as minimum protection. Dust goggles should be worn in excessively (visible) dusty conditions are present or are anticipated.	
SKIN Exposed skin with soap and water. Wash work clothes after each use.	
MONITORING Respirable dust and quartz levels should be monitored regularly. Dust and quartz levels in excess of appropriate 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.	

