



# MATERIAL SAFETY DATA SHEET

Effective Date: 05-20-01

Replaces: 01-17-97

## 1 - IDENTIFICATION

CHEMICAL NAME Basalt	CHEMICAL FORMULA N/A	MOLECULAR WEIGHT N/A
TRADE NAME SporTerra, Fielder's Choice Premium - Green		
SYNONYMS Aggregate, Stone Dust		DOT IDENTIFICATION NO. N/A

## 2- PRODUCT AND COMPONENT DATA

COMPONENT(S) CHEMICAL NAME	CAS REGISTRY NO.	% (APPROX.)	EXPOSURE LIMITS
Basalt* *Composition varies naturally; typically contains feldspar, mica, and chlorite among other naturally occurring minerals)	None	95-100	See Section 6
Crystalline Silica (quartz)	14808-60-7	<5.0	
Stabilizer® (psyllium)	8063-16-9	<1.0	
Fiberform Ferro-Actinolite with rare occurrences of Asbestiform Ferro-Actinolite	1332-21-4	<0.01	

## 3 - PHYSICAL DATA

APPEARANCE AND ODOR Basalt: angular particles in gray, green, and white colors; dust to boulders, no odor. Stabilizer®: tan powder with characteristic odor	SPECIFIC GRAVITY 2.6 - 2.81
BOILING POINT (At 1 Atm): N/A	VAPOR DENSITY IN AIR (Air = 1) N/A
VAPOR PRESSURE (mm Hg @ 20°C) N/A	% VOLATILE, BY VOLUME N/A
EVAPORATION RATE (at 1 Atm, and 25°C; n-butyl acetate = 1) N/A	SOLUBILITY IN WATER Negligible

## 4 - REACTIVITY DATA

STABILITY Stable	CONDITIONS TO AVOID Avoid contact with incompatible materials (see below)
INCOMPATIBILITY (Materials to avoid) Contact with powerful oxidizing agents; fluorine, chlorine trifluoride, manganese trifluoride, oxygen difluoride - may cause fire/explosion. Silica dissolves in hydrofluoric acid, producing the corrosive gas Silicon Tetrafluoride.	
HAZARDOUS DECOMPOSITION PRODUCTS None known.	

## 5 - FIRE AND EXPLOSION HAZARD DATA

FLASHPOINT (Method used) N/A	FLAMMABLE LIMITS IN AIR N/A
EXTINGUISHING AGENTS None required	
UNUSUAL FIRE AND EXPLOSION HAZARDS None known	

## 6 - TOXICITY AND FIRST AID

<p>EXPOSURE LIMITS (When exposure to this product and other chemicals is concurrent, the exposure limit must be defined in the workplace). Unless specified otherwise, limits are expressed as eight-hour time-weighted averages (TWA). Limits for cristobalite and tridymite (other forms of crystalline silica) are equal to one-half of the limits for quartz.</p> <p><b>ABBREVIATIONS:</b> TLV = threshold limit value of the American Conference of Governmental Industrial Hygienists (ACGIH); MSHA PEL = permissible exposure limit of the Mine Safety and Health Administration (MSHA); OSHA PEL = permissible exposure limit of the Occupational Safety and Health Administration (OSHA); mg/m<sup>3</sup> = milligrams of substance per cubic meter of air.</p> <p><b>Other Particulates:</b> TLV = 10 mg/m<sup>3</sup> (inhalable/total particulate, not otherwise classified), TLV = 3 mg/m<sup>3</sup> (respirable particulate, not otherwise classified); OSHA PEL = 15 mg/m<sup>3</sup> (total particulate, not otherwise regulated), OSHA PEL = 5 mg/m<sup>3</sup> (respirable particulate, not otherwise regulated).</p> <p><b>Respirable Crystalline Silica (quartz):</b> TLV = 0.1 mg/m<sup>3</sup>; MSHA and OSHA PEL = (10 mg/m<sup>3</sup>) ÷ (%SiO<sub>2</sub> + 2); MSHA-Proposed and OSHA-Proposed PEL = 0.1 mg/m<sup>3</sup></p> <p><b>Respirable Dust:</b> MSHA and OSHA PEL = (10 mg/m<sup>3</sup>) ÷ (%SiO<sub>2</sub> + 2)</p> <p><b>Total Dust:</b> MSHA PEL = (30 mg/m<sup>3</sup>) ÷ (%SiO<sub>2</sub> + 2); OSHA PEL = (30 mg/m<sup>3</sup>) ÷ (%SiO<sub>2</sub> + 2)</p> <p><b>Stabilizer® (psyllium):</b> No known TLV or PEL; not regulated by OSHA according to manufacturer.</p> <p><b>Actenolite Asbestos:</b>* OSHA TWA = 0.1 f/cc short term (30 min); MSHA TWA = 2 f/cc</p> <p>*Note: Asbestiform ferro-actinolite differs mineralogically from the regulated mineral actinolite asbestos, thus it is not a regulated mineral. However, OSHA and MSHA might consider the minerals actinolite and ferro-actinolite equivalent for regulatory purposes.</p> <p>ACGIH, MSHA, and OSHA have determined that adverse effects are not likely to occur in the workplace provided exposure levels do not exceed the appropriate TLVs/PELs. However, because of the wide variation in individual susceptibility, lower exposure limits may be appropriate for some individuals including persons with pre-existing medical conditions such as those described below.</p>			
<p>MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE Inhaling respirable dust may aggravate existing respiratory system disease(s) and/or dysfunctions; may aggravate existing skin or eye conditions.</p>			
PRIMARY ROUTE(S) OF EXPOSURE	X Inhalation	Skin	Ingestion
<p>ACUTE TOXICITY</p> <p><b>EYE CONTACT:</b> Exposure may irritate eyes</p> <p><b>SKIN CONTACT:</b> Exposure may irritate eyes</p> <p><b>SKIN ABSORPTION:</b> N/A</p> <p><b>INGESTION:</b> N/A</p> <p><b>INHALATION:</b> Exposure may irritate respiratory system</p>			
<p>FIRST AID</p> <p><b>EYES:</b> Flush with running water for 20 minutes</p> <p><b>SKIN:</b> Wash with soap and water</p> <p><b>INGESTION:</b> N/A</p> <p><b>INHALATION:</b> Remove to fresh air</p>			

#### CHRONIC TOXICITY

Prolonged and repeated inhalation of respirable crystalline silica-containing dust in excess of appropriate exposure limits has caused silicosis, a lung disease. Not all individuals with silicosis 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. Symptoms of silicosis may include, but are not limited to, the following: 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. Smoking may increase the risk of developing lung disorders, including emphysema and lung cancer. Persons with silicosis have an increased risk of pulmonary tuberculosis infection. Asbestiform actinolite is a known carcinogen; exposure in excess of appropriate exposure limits has caused asbestosis and progressive pneumoconiosis. Symptoms of asbestosis are similar to silicosis as stated above.

Respirable dust containing newly broken silica particles has been shown to be more hazardous to animals in laboratory tests than respirable dust containing older silica particles of similar size. Respirable silica particles which had aged for sixty days or more showed less lung injury in animals than equal exposures of respirable dust containing newly broken particles of silica.

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, this evidence has been obtained primarily from case reports involving individuals working in high exposure situations or those who have already developed silicosis; and therefore, this evidence does not conclusively prove a casual relationship between silica or silicosis and these adverse health effects. Several studies of persons with silicosis also indicate an increased risk of developing lung cancer, a risk that increases with the duration of exposure. Many of these studies of silicotics do not account for lung cancer confounders, especially smoking.

Basalt is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA). In October 1996, and IARC Working Group re-assessing crystalline silica, a component of this product, designated crystalline silica as carcinogenic (Group 1). The NTP indicates that crystalline silica is reasonable anticipated to be a carcinogen (Group 2). These classifications are based on sufficient evidence of carcinogenicity in certain experimental animals and on selected epidemiological studies of workers exposed to crystalline silica.

### 7 - PERSONAL PROTECTION CONTROLS

#### RESPIRATORY PROTECTION

NIOSH/MSHA/OSHA approved dust respirators

#### VENTILATION

Local exhaust - adequate to remain below PEL exposures  
Mechanical (general) - wet suppression/fabric filter collectors  
Special - process enclosure  
Other - enclosed employee work stations

#### SKIN PROTECTION

See "Hygiene" section below.

#### EYE PROTECTION

Safety glasses with side shields or dust goggles

#### HYGIENE

Wash dust-exposed skin with soap and water before eating, drinking, smoking, and using toilet facilities. Wash work clothes after each use.

#### OTHER CONTROL MEASURES

When necessary, respirable dust, quartz, and fiber levels should be monitored regularly. Dust, quartz, and fiber 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 workstations.

## 8- STORAGE AND HANDLING PRECAUTIONS

Respirable dust may be generated during processing, handling, and storage. Respiratory protection may be necessary; keep away from incompatible materials (see Section 4).

## 9 - SPILL, LEAK, AND DISPOSAL PRACTICES

### STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

The personal protection and controls identified in Section 7 of this MSDS should be applied as appropriate.

Spilled materials, where dust can be generated, may overexpose cleanup personnel to respirable crystalline silica-containing dust. Wetting of spilled material and/or use of respiratory protective equipment may be necessary. Do not dry sweep spilled material.

None of the components in this product are subject to the reporting requirements of Title III of SARA, 1986 and 40 CFR 372.

### WASTE DISPOSAL METHOD

Pickup and reuse clean materials. Dispose of waste materials only in accordance with applicable federal, state, and local laws and regulations.

## 10 - TRANSPORTATION

### DOT HAZARD CLASSIFICATION

None

### PLACARD REQUIRED

None

### LABEL REQUIRED

Label as required by the OSHA Hazard Communication standard [29 CFR 110.1200 (f)] and applicable state and local laws and regulations.

### For Further Information

### Contact:

LUCK STONE CORPORATION  
P. O. Box 29682  
Richmond, VA 23242  
804-784-6300  
8 AM - 5 PM Eastern Time  
Monday through Friday

**Notice:** Luck Stone Corporation believes that the information contained on this Material Safety Data Sheet is accurate. The suggested procedures are based on experience as of the date of publication. They are not necessarily all-inclusive or fully adequate in every circumstance. Also, the suggestions should not be confused with or followed in violation of applicable laws, regulation, rules, or insurance requirements.

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