



HEMPHILL BROTHERS INC

Limestone

Safety Data Sheet
Date of Issue: 6/29/2018

Version: 2.0

SECTION 1: IDENTIFICATION

Product Identifier

Product Name: Limestone

Intended Use of the Product

Flux, roadways, mineral filler, agriculture, animal feed, glass, aggregates, and landscaping. **NOTE: This product is NOT to be used for sand blasting.**

Name, Address, and Telephone of the Responsible Party

Hemphill Brothers, Inc.

Northport Limestone Division

4183 Wright Rd

Northport, WA 99157

(509) 732-4481 | www.hemphillbrothersinc.com

Emergency Telephone Number

(509) 732-4481

SECTION 2: HAZARDS IDENTIFICATION

GHS-US/Canadian Classifications

Skin Irritant (Category 2)

Eye Irritant (Category 2A)

Lung Carcinogen (Category 1A)

Specific Target Organ Toxicity (STOT), Single Exposure – transitory respiratory tract irritation (Category 3)

STOT, Repeated Exposure – lungs (silicosis and other lung conditions), kidneys, immune system (Category 1)

Label Elements

Hazard Pictograms (GHS-US/CA)



Signal Word (GHS-US/CA)

DANGER

Hazard Statements (GHS-US/CA)

Exposure to respirable crystalline silica may cause:

- Lung cancer if inhaled.
- Damage to the lungs (silicosis, other possible effects) or other organs (kidneys, immune system) through prolonged or repeated inhalation exposure.

Exposure to sand, if not handled in a way that releases airborne respirable dust, may cause:

- Mechanical irritation if it gets in the eyes or on the skin.
- Respiratory irritation if inhaled.

Precautionary Statements (GHS-US/CA)

Take precautions to prevent release of and exposure to fine dust/respirable crystalline silica.

Do not handle until all safety precautions have been read and understood.

Do not breathe dust. Use only outdoors or in a well-ventilated area. Use an appropriate respirator if overexposure to respirable crystalline silica may occur. Provide additional ventilation if method of use or handling may break the product down into smaller particle sizes or generate fine airborne dust. **DO NOT use this product for sand blasting!**

Avoid getting in eyes, on skin, or on clothing. Use personal protective equipment (PPE) as required.

If skin irritation occurs, rinse the affected area with water. If in eyes, rinse well with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, get medical advice/attention.

Store in a locked, well-ventilated place. Dispose of contents/container in accordance with

local, regional, national, and international regulations.

Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions. It may increase susceptibility to tuberculosis (TB), if exposed to TB.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS Registry Number	Percentage by Weight
Limestone (Calcium Carbonate)	1317-65-3	90-99
Crystalline Silica (as Quartz)	14808-60-7	2 (approximate)
Aluminum Oxide	7429-90-5	0.5 (approximate)
Iron Oxide	1309-37-1	0.25 (approximate)

SECTION 4: FIRST AID MEASURES

First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show this Safety Data Sheet or the label where possible).

Inhalation: When symptoms occur, go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.

Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

Ingestion: Rinse mouth. DO NOT induce vomiting. Obtain medical attention.

Most Important Symptoms and Effects both Acute and Delayed

Acute Symptoms and Effects: Dust may cause mechanical irritation to eyes, skin, and respiratory tract. May be irritating to gastrointestinal tract if swallowed.

Inhalation: Irritation of the respiratory tract and the other mucous membranes. This product contains crystalline silica. Prolonged or repeated inhalation of respirable crystalline silica from this product can cause silicosis, a progressive, disabling and often fatal lung disease.

Skin Contact: Prolonged exposure may cause skin irritation. Prolonged contact with large amounts of dust may cause mechanical irritation.

Eye Contact: May cause slight irritation to eyes.

Ingestion: Ingestion may cause adverse effects.

Chronic Symptoms: This product contains crystalline silica and may cause lung cancer. Repeated or prolonged exposure to airborne respirable crystalline silica dust (by inhalation) may cause silicosis, a disabling, non-reversible and often fatal lung disease. Symptoms of silicosis include progressively more difficult breathing, cough, fever, and weight loss. Progressive massive fibrosis may be accompanied by right heart enlargement, heart failure, and pulmonary failure. Exposure may also aggravate pre-existing lung diseases such as emphysema or asthma. May cause chronic bronchitis and damage to the kidneys and immune system. May increase susceptibility to pulmonary tuberculosis. Smoking aggravates the effects of exposure to respirable crystalline silica.

Indication of Any Immediate Medical Attention and Special Treatment Needed

This product is not expected to pose an immediate medical hazard, except through irritation of skin, eyes, or respiratory system. If exposed or concerned, take the first aid steps listed in this section. Get medical advice and attention if irritation persists. If medical advice is needed, have product container, label, or Safety Data Sheet at hand. For the symptoms of chronic exposure – see above – obtain medical advice and attention. See also Section 11, Toxicological Information.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Water spray, dry chemical, foam, carbon dioxide.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

Special Hazards

Fire Hazard: Not flammable.

Explosion Hazard: Product is not explosive and is not known to be an explosive dust.

Reactivity: Hazardous reactions are not expected to occur under normal firefighting conditions.

Advice for Firefighters

Firefighting Instructions: Use water spray or fog for cooling exposed containers. Avoid raising dust.

Hazardous Combustion Products: None known.

SECTION 6: ACCIDENTAL RELEASE MEASURES**Personal Precautions, Protective Equipment, and Emergency Procedures**

Use appropriate personal protective equipment (PPE) to prevent contact with and inhalation of dust. Refer to Section 8 for more information on choosing PPE.

Environmental Precautions

Prevent entry into sewers and public waters.

Methods and Materials for Containment and Cleaning Up

Clean up spills immediately and avoid creating dust. Vacuum spilled material using a HEPA-filtered vacuum or wet the material using a dust suppressant prior to sweeping or shoveling. Do not use dry sweeping or compressed air. Transfer spilled material to a suitable container for disposal. Dispose of spilled material appropriately. Refer to Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE**Precautions for Safe Handling**

Additional Hazards When Processed: If processing results in the generation of airborne dusts, exposure to respirable crystalline silica dust may result. Refer to Section 4 for information on the hazards of exposure to respirable crystalline silica dust.

Precautions for Safe Handling: Specific end uses of this product include flux, roadways, mineral filler, agriculture, animal feed, glass, aggregates, and landscaping. **This product is NOT to be used for sand blasting.** Do not handle until all safety precautions have been read and understood. If airborne dust may be generated during use and handling, conduct industrial hygiene air sampling for respirable crystalline silica. If the appropriate permissible exposure limit (PEL) is exceeded, appropriate engineering controls and/or personal protective equipment (PPE) should be worn to prevent overexposure through inhalation, contact with the eyes or skin, and contamination of clothing. Refer to Section 8 for more information on exposure controls, such as PELs, engineering controls, and PPE.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures, as appropriate to the task being performed and the results of industrial hygiene air monitoring.

Conditions for Safe Storage, Including Any Incompatibilities

Storage Conditions: Comply with applicable regulations. Avoid creating or spreading dust. Keep container closed when not in use. Store in a well-ventilated place. Do not store near eating facilities or locker rooms. Ensure that personnel are protected from any potential engulfment hazard due to unstable or shifting material.

Incompatible Materials: Strong oxidizers. Fluorine. Fluorinated compounds. Acetylene. Ammonia. Hydrogen peroxide. Hydrofluoric acid.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**Exposure Limits**

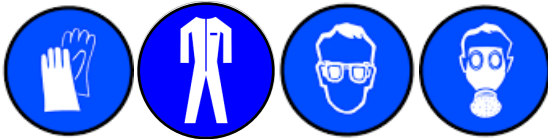
Ingredient	Source of Exposure Limit	Exposure Limit
Respirable Crystalline Silica (14808-60-7) as Quartz	OSHA Permissible Exposure Level (PEL)	50 µg/m ³
	OSHA Action Level (AL)	25 µg/m ³
Aluminum Oxide (7429-90-5)	OSHA PEL (total dust)	15 mg/m ³
	OSHA PEL (respirable fraction)	5 mg/m ³
Iron Oxide (1309-37-1)	OSHA PEL (as a fume)	10 mg/m ³
	OSHA PEL (as a particulate not otherwise regulated, PNOR, total dust)	15 mg/m ³
	OSHA PEL (as a particulate not otherwise regulated, PNOR, respirable fraction)	5 mg/m ³

Note that OSHA PELs and Action Levels can be found in 29 CFR 1910.1053 and 29 CFR 1910.1000.

Exposure Controls

Appropriate Engineering Controls: Refer to the applicable OSHA standard (29 CFR 1910.1053 for General Industry and 29 CFR 1926.1153 for Construction), or to the appropriate state or provincial standard, for required engineering controls during the handling of this product. In addition, emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Power equipment should be equipped with properly designed dust collection devices. Maintain sufficient mechanical or natural ventilation to ensure that respirable crystalline silica concentrations remain below the PEL. Use local exhaust if necessary. Adequate ventilation is especially important in confined areas. Ensure all national, state, provincial, and local regulations are observed.

Personal Protective Equipment: Gloves. Protective clothing. Protective goggles or safety glasses. In the case of insufficient ventilation and potential for overexposure to respirable crystalline silica, also wear respiratory protection.



Materials for Protective Clothing: Materials and fabrics impervious to dusts.

Hand Protection: Protective gloves impervious to dusts and otherwise appropriate to the job.

Eye Protection: Chemical goggles or safety glasses.

Respiratory Protection: If exposure limits are exceeded or respiratory irritation is experienced, approved respiratory protection should be worn. The specific respirator worn should be based on the results of airborne industrial hygiene monitoring for respirable crystalline silica, the requirements of the OSHA standards for respirable crystalline silica (29 CFR 1910.1053 for General Industry, 29 CFR 1926.1153 for Construction), and the OSHA Respiratory Protection Standard (29 CFR 1910.134).

Other Information: When using, do not eat, drink, or smoke. Wash unprotected skin before handling food, drinks, make-up, or before smoking. Wash unprotected work clothes after each use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	Solid
Appearance	Gray/white
Odor	Odorless
Odor Threshold	Not applicable
pH	8-9
Evaporation Rate	Not applicable
Melting Point	Not applicable
Freezing Point	Not applicable
Boiling Point	≈ 825°C (≈ 1500°F)
Flash Point	Not applicable
Auto-ignition Temperature	Not applicable
Decomposition Temperature	Not applicable
Flammability (solid, gas)	Not applicable
Lower Flammable Limit	Not applicable
Upper Flammable Limit	Not applicable
Vapor Pressure	Not applicable
Relative Vapor Density at 20°C	Not applicable
Relative Density	Not applicable
Specific Gravity	2.8
Solubility	Not applicable
Partition Coefficient: N-Octanol/Water	Not applicable
Viscosity	Not applicable

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.

Incompatible Materials: Strong oxidizers including fluorine, fluorides, acetylene, ammonia, hydrogen peroxide, and hydrofluoric acid.

Hazardous Decomposition Products: Silica compounds. Crystalline silica (quartz) will dissolve in hydrofluoric acid producing a corrosive gas, silicon tetrafluoride. Crystalline silica exists in several forms, the most common of which is quartz. If crystalline silica (quartz) is heated to more than 870°C, it can change to a form of crystalline silica known as tridymite, and if crystalline silica (quartz) is heated to more than 1470°C, it can change to a form of crystalline silica known as cristobalite. The OSHA PEL for tridymite and cristobalite is the same as for crystalline silica as quartz.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity (Oral):

Crystalline Silica LD50 Oral Rat: > 5000 mg/kg

Aluminum Oxide LD50 Oral Rat: > 15900 mg/kg

Acute Toxicity (Dermal): Not classified

Acute Toxicity (Inhalation):

Crystalline Silica LC50 Inhalation Rat: > 248 mg/m³/6h

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Aluminum Oxide LC50 Inhalation Rat: > 2.3 mg/l/4h

Iron Oxide LC50 Inhalation Rat: 50 mg/m³/12h

IDLH Data: 50 mg/m³ for crystalline silica as quartz, 25 mg/m³ for crystalline silica as tridymite or cristobalite

Skin Corrosion/Irritation: May cause temporary irritation through mechanical abrasion

Eye Damage/Irritation: May cause temporary irritation through mechanical abrasion

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Carcinogenicity:

International Agency for Research on Cancer (IARC): Group 1, carcinogenic to humans

National Toxicology Program (NTP): Known human carcinogen

OSHA: Identified as a human carcinogen (lungs)

Specific Target Organ Toxicity (Repeated Exposure): Causes damage to organs (lungs, kidneys, immune system) through prolonged or repeated exposure

Reproductive Toxicity: Not classified

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

Aspiration Hazard: Not classified

Symptoms/Injuries after Inhalation: Irritation of the respiratory tract and the other mucous membranes. This product contains crystalline silica. Prolonged or repeated inhalation of respirable crystalline silica from this product can cause silicosis, a serious progressive, disabling, and often fatal lung disease.

Symptoms/Injuries after Skin Contact: Prolonged exposure may cause skin irritation. Prolonged contact with large amounts of dust may cause mechanical irritation.

Symptoms/Injuries after Eye Contact: May cause temporary irritation to eyes

Symptoms/Injuries after Ingestion: Ingestion may cause adverse effects.

Chronic Symptoms: May cause lung cancer. Causes damage to organs (lungs) through prolonged or repeated exposure (inhalation). Repeated or prolonged exposure to respirable (airborne) crystalline silica dust will cause lung damage in the form of silicosis. Symptoms will include progressively more difficult breathing, cough, fever, and weight loss. Pre-existing lung diseases such as emphysema or asthma may be aggravated by exposure to dusts. Pulmonary function may be reduced by inhalation of respirable crystalline silica. Lung scarring produced by such inhalation may lead to a progressive massive fibrosis of the lung, which may aggravate other pulmonary conditions and diseases and which increases susceptibility to pulmonary tuberculosis. Progressive massive fibrosis may be accompanied by right heart enlargement, heart failure, and pulmonary failure. Smoking aggravates the effects of exposure.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: Not applicable

Persistence and Degradability: Not applicable

Bioaccumulative Potential: Not applicable

Mobility in Soil: Not applicable

Other Adverse Effects: None expected

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations. Do not contaminate waterways or bodies of water with fine particulate.

Additional Information: Container may remain hazardous when empty. Continue to observe all precautions.

Ecology - Waste Materials: Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

In Accordance with DOT: Not regulated for transport

In Accordance with IMDG: Not regulated for transport

In Accordance with IATA: Not regulated for transport

In Accordance with TDG: Not regulated for transport

SECTION 15: REGULATORY INFORMATION

US Federal Regulations

Quartz (14808-60-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Aluminum Oxide (7429-90-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Subject to reporting requirements of United States SARA Section 313

Iron Oxide (1309-37-1)

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Listed on the United States TSCA (Toxic Substances Control Act) inventory

US State Regulations

Crystalline Silica, Airborne Particles of Respirable Size (14808-60-7)

US - California - Proposition 65 - Carcinogens List

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

Quartz (14808-60-7)

US - Massachusetts - Right To Know List

US - New Jersey - Right to Know Hazardous Substance List

US - Pennsylvania - RTK (Right to Know) List

Aluminum Oxide (7429-90-5)

US - Massachusetts - Right To Know List

US - New Jersey - Right to Know Hazardous Substance List

US - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

US - Pennsylvania - RTK (Right to Know) List

Iron Oxide (1309-37-1)

US - Pennsylvania - RTK (Right to Know) List

Canadian Regulations

Quartz (14808-60-7)

Listed on the Canadian DSL (Domestic Substances List)

Aluminum Oxide (7429-90-5)

Listed on the Canadian DSL (Domestic Substances List)

Iron Oxide (1309-37-1)

Listed on the Canadian DSL (Domestic Substances List)

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date

6/29/2018

Other Information

This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products Regulations (HPR).

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety, and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. The data in this safety data sheet relates only to the specific material designated herein and does not relate to use in combination with any other materials or in any process. It is based on the product only as sold, and does not address additional contaminants of the product that may have arisen from use or processing. The information set forth herein is based on technical data that Hemphill Brothers, Inc. believes reliable. It is intended for use by persons having appropriate technical skills or access to the necessary technical resources and is used at their own discretion and risk. Since conditions of use are outside our control, we make no warranties, expressed or implied, and assume no liability in connection with any use of this information. Any use of this data and information must be determined by the user to be in accordance with federal, provincial, and/or municipal laws and regulations.

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