SAFETY DATA SHEET

Section 1. Product Identification

Product Name:	**Limestone flour, Limestone Separator Sand, Mineral Filler Limestone**
Other means of identification	
SDS number:	JAJ 1001
Synonyms:	Calcium Carbonate
Recommended use:	Filler or pigment
Recommended Restrictions:	Use in accordance with manufacturer's recommendations.

Manufacturer/Importer/Supplier/Distributor information

Company name:	J.A. Jack and Sons, Inc, dba Arcosa Specialty Materials
Address:	5427 Ohio Avenue, South Seattle, WA 98134
Telephone:	(206) 762-7622
Website:	www. ArcosaSpecialtyMaterials.com
Emergency phone number:	1-800-624-5963

Section 2. Hazard(s) Identification

Emergency Overview:	These products are not flammable, combustible, or explosive. They do not cause burns or severe skin or skin irritation. A single exposure will not result in serious adverse health effect. Prolonged contact with any of these products may result in abrasions to the skin or irritation of the eyes. Prolonged inhalation of the dust may irritate the respiratory tract.
Physical hazards:	Not classified
Acute:	
Eyes:	May cause mechanical irritation of eyes in rare cases. If burning, redness, itching, pain or other symptoms persist or develop, consult physician. Eye irritation Category 2, subcategory 2B.
Skin:	Prolonged contact with the skin may cause irritation. Rubbing of this product against the skin can result in abrasion. Rinse with water until free of material to avoid abrasion, wash skin thoroughly with mild soap and water. May dry skin. Mild skin irritation Category B.
Inhalation:	Inhalation prolonged and repeated exposure to respirable crystalline silica can result in lung disease (i.e. silicosis) and lung cancer. Silicosis increases the risk of tuberculosis. Studies have shown various autoimmune and chronic kidney diseases in workers exposed to respirable crystalline silica. Some studies show and increased incidence of chronic bronchitis and emphysema in workers exposed to crystalline silica.
Chronic:	Limestone displays no specific toxic properties. Inhalation prolonged and repeated exposure to respirable crystalline silica can result in lung disease (i.e. silicosis) and lung cancer. Silicosis increases the risk of tuberculosis. Studies have shown various autoimmune and chronic kidney diseases in workers exposed to respirable crystalline silica. Some studies show and increased incidence of chronic bronchitis and emphysema in workers exposed to crystalline silica.
Health Hazards:	Sensitization, Respiratory Category 1
Environmental hazards:	Not Classified
OSHA defined hazards:	Not Classified
GHS Classification Carcinogenicity:	Category 1A

Label elements:



Signal word:	Danger
Hazard statement:	Causes eye and skin irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Precautionary statement:	
Prevention:	Wash hands thoroughly after handling. Wear protective gloves. Avoid breathing dust. Wear respiratory protection.
Response:	If eye irritation persists, if skin irritation occurs, or if experiencing respiratory symptoms: Get medical advice/attention.
Storage:	Store as indicated in Section 7.
Disposal:	Dispose of in accordance with local, state, and federal regulations.
Potential Health Effects Carcinogenicity IARC:	Group 1: Carcinogenic to humans – Quartz (SiO2) CAS# 14808-60-7
NPT:	The NPT report on carcinogens lists crystalline silica (respirable size – passing 10 microns) as a known human carcinogen. Respirable particles in these products is not anticipated.

Section 3. Composition/Information on Ingredients

Substance / Mixture: Substance

Chemical name:	CAS number	%
Limestone	1317-65-3	98-100
Silicon Dioxide (Crystalline Silica)	14808-60-7	>0.1%

The specific identity and/or exact concentration has been withheld as a trade secret.

Section 4. First-Aid Measures

Inhalation:	If irritation develops, remove to fresh air. Get medical attention if irritation persists.
Skin:	First aid is not normally required. Wash skin with soap and water. Get medical attention if irritation develops or persists. Remove contaminated clothing and launder before reuse.
Eye contact:	Flush with plenty of water, holding the eyelids apart to ensure through washing. Get medical attention if irritation persists.
Ingestion:	Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if large amount is swallowed.
Most Important symptoms/effects, acute and delayed:	Long exposure to casual dust may cause mechanical eye and skin irritation. Inhalation of dust may cause respiratory irritation, coughing and difficulty in breathing.
Indication of Immediate medical attention and special treatment needed:	None required under normal conditions of use.

Section 5. Fire and Explosion Hazard Data

Flash Point:	Non-Flammable
Suitable (and unsuitable) extinguishing media:	Use media appropriate for the surrounding fire.
Specific hazards arising from the chemical:	Not flammable or combustible.
Special protective equipment and precautions for fire-fighters:	Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing.

Section 6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures	Wear appropriate protective equipment. Avoid creating and breathing dust.
Environmental hazards	Report releases as required by local and federal authorities.
Methods and materials for containment and cleaning up:	Collect and place in appropriate container for use or disposal.

Section 7. Handling and Storage

Environmental precautions:	No special environmental precautions required.
Precautions for safe handling:	Avoid contact with eyes, skin and clothing. Avoid breathing dust. Wear protective clothing and equipment as described in Section 8. Wash with soap and water after use.
Conditions for safe storage, including any incompatibilities:	Store in a cool, dry, well-ventilated area. Protect from physical damage. Do not store near acids.

Section 8. Exposure Controls/Personal Protection

Exposure guidelines:

Limestone – CAS # - 1317-65-3	5 mg/m3 TWA OSHA PEL (respirable) 10 mg/m3 TWA OSHA PEL (total dust)
Crystalline Silica – CAS # - 14808-60-7	10 mg/m3 / % Silica + 2 TWA OSHA PEL (respirable fraction) 30 mg/m3 / % Silica + 2 TWA OSHA PEL (total dust) 0.025 mg/m3 TWA ACGIH TLV (respirable fraction)

Appropriate engineering controls

Engineering Controls:	Use with adequate general or local exhaust ventilation to maintain exposures below the occupational exposure limits.
Individual protection measures, such as personal protective equipment:	
Respiratory protection:	If the exposure limits are exceeded a NIOSH approved particulate respirator appropriate for the form and concentration of the contaminants should be used. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 or other applicable regulations and good industrial hygiene practice.
Skin protection:	Abrasive resistant gloves are recommended if needed to avoid skin contact.
Eye protection:	Chemical safety glasses with side-shields are recommended.

Hygiene measures:	Follow general industrial hygiene practices.
Other:	None required.

Section 9. Physical and Chemical Properties

Appearance	White Powder
Odor	Odorless
Reactive	Will react with most acid to release heat and carbon dioxide gas until neutral pH is restored.

Odor threshold: Not applicable	**pH:** Not applicable
Melting Point/Freezing Point: 2372°F /1300°C	**Boiling point:** Not applicable
Flash point: Not applicable	**Evaporation rate:** Not applicable
Flammability (solid, gas):	
Flammable limits: LEL: Not applicable	**UEL:** Not applicable
Vapor pressure: Not applicable	**Vapor density:** Not applicable
Relative density: 87-107 lb./ft^3	**Solubility in Water:** 0.0006%
Partition coefficient: n-octanol/water: Not applicable	**Auto-ignition temperature:** Not applicable
Decomposition Temperature: over 1112°F / 600°C	**Viscosity:** Not applicable

Section 10. Chemical Stability and Reactivity

Reactivity:	Reacts with acids.
Chemical stability:	Stable under normal conditions.
Possibility of hazardous reactions:	Reacts with acids to form carbon dioxide and heat.
Conditions to avoid:	None known
Incompatible materials:	Avoid acids, alum, ammonium salts, mercury and heat, fluorine and magnesium.
Hazardous decomposition products:	Thermal decomposition may produce oxides of carbon and calcium. This displaces the oxygen in the air in enclosed spaces (danger of suffocation).

Section 11. Toxicological Information

Likely routes of exposure

Inhalation:	Inhalation of dust may cause irritation to the nose, throat and upper respiratory tract with coughing and shortness of breath.
Ingestion:	Not expected to cause adverse effects.
Skin contact:	Prolonged skin contact may cause mechanical irritation and abrasions.
Eye contact:	May cause mechanical irritation with redness, tearing and pain.
Chronic effects:	None known
Germ Cell Mutagenicity:	This product is not expected to cause germ cell mutagenicity.
Developmental / Reproductive Toxicity:	This product is not expected to cause adverse effects on reproduction or development.
Carcinogenicity:	Crystalline silica quartz is listed as “Carcinogenic to Humans” (Group 1) by IARC and “Known to be a Human Carcinogen" by NTP. The crystalline silica in this product is inextricably bound in large grains that no exposure occurs during normal use and handling. Therefore this product is not classified as a carcinogen. None of the other components are listed as a carcinogen by IARC, NTP or OSHA.

Acute Toxicity Values:

Limestone:	Oral rat LD50 >5000 mg/kg
Crystalline Silica, Quartz:	Oral rat LD50 >5000 mg/kg

Section 12. Ecological Information

Ecotoxicity In solid state, these minerals are a major part of the rocks of the earth's surface. They are dissolved in a natural state and indispensable part of the natural waters. These minerals are not biodegradable. Negative effects on the environment should therefore be excluded. Restrictions may be indicated that concentrated suspensions of these minerals in natural waters may have an unfavorable effect on water organisms (disturbance of the micro flora and fauna in the sediment and subsequent detriment to the existence of higher water organisms).

Product:	
Toxicity to fish	LC50 (Oncorhynchus mykiss (rainbow trout)): 10,000 mg/l Exposure time: 96 h
Toxicity to daphnia and other	ED50 (Daphnia magna (Water flea)): >1,000 mg/l aquatic invertebrates Exposure time: 48 h
Toxicity to algae	ED50 (Desmodesmus subspicatus (green algae)): >200 mg/l Exposure time: 72 h

Ingredients: Limestone:	
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Persistence and degradability

Product:	
Biodegradability	Not applicable

Bio-accumulative potential

Ingredients:	
Limestone:	Partition coefficient: n-octanol/water - Not applicable.
Mobility in soil:	No data available.

Other adverse effects

Product:	
Regulation:	40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone – CAA Section 602 Class I Substances. This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, APP. A+B).

Ingredients: Limestone:	
Results of PBT and vPvB:	Non-classified PBT substance, Non-classified vPvB substance assessment.

Section 13 Disposal Considerations

Disposal procedure: Dispose in accordance with all local, state and federal regulations.

Section 14. Transport Information

	UN Number	Proper shipping name	Hazard Class	Packing Group	Environmental Hazard
DOT		Not Regulated			
TDG		Not Regulated			
IMDG		Not Regulated			

IATA		Not Regulated			
		Not Regulated			

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Not applicable

Special precautions: None known.

Safety, health, and environmental regulations specific for the product in question.

Section 15 Regulatory Information

CERCLA Section 103: This product is not subject to CERCLA spill reporting requirements. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA Hazard Category (311/312): Not hazardous

EPA SARA 313: This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None

US TSCA: All of the components of this material are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory or are exempt.

Clean Air Act: This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61). This Product does not contain any chemicals listed under the U.S. Clean Air Act Section 112® for Accidental Release Prevention (40 CFR 68.130, Subpart F) This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489.

Clean Water Act: This product does not contain any Hazardous Substances listed under the U.S. Clean Water Act, Section 311, Table 116.4A This product does not contain any Hazardous Chemicals listed under the U.S. Clean Water Act, Section 311, Table 117.3 This Product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307.

California Proposition 65: ⚠ Warning: This product can expose you to chemicals, including crystalline silica, known to the state of California to cause cancer and birth defects or other reproductive harm. For more information, go to: www/P65Warnings.ca.gov

CANADA

Canadian CEPA: All of the components are listed on the Canadian DSL or are exempt

Canadian WHMIS: Not a controlled product

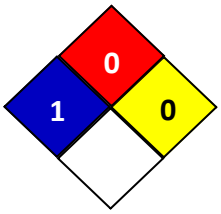
This product has been classified in accordance with the hazard criteria in the CPR and the MSDS contains all the information required by the CPR.

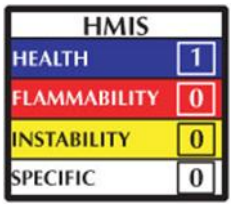
Section16 Other Information

NFPA Rating:	Health = 1	Flammability = 0	Instability = 0
HMIS Rating:	Health = 1	Flammability = 0	Physical Hazard = 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

NFPA ratings





Disclaimer This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.

SDS Revision History:	All Section revised - Update to GHS format
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