

QSR Plus

Safety Data Sheet

Rev: 02-2018

Section 1 Product Description

Product Name: Strong-Seal® QSR Plus
Synonyms: QSR Plus
General Use: To stop leaks, restore structural integrity and provide corrosion protection to concrete and masonry wastewater structures.
Product Description: A calcium aluminate cement product blended with pozzolans, aggregate, fiberglass reinforcement and performance enhancing admixtures.
Manufacturer: The Strong Company, Inc.
4505 Emmett Sanders Road
Pine Bluff, AR 71601
Chemical Information: (870) 535-7617
Emergency Number: (800) 982-8009

Section 2 Hazards Identification

Classification of the product in accordance with paragraph (d) of §1910.1200;

Signal Word:
Danger



Warning: This product can expose you to chemicals including crystalline, silica, and lithium carbonate, which are known to the state of California to cause cancer. For more information, go to www.P65Warnings.ca.gov.

GHS Classification:

Skin Corrosion/Irritation, Category 3
Serious Eye Damage/Eye Irritation, Category 2A
Carcinogenicity, Category 1A

Specific Target Organ Toxicity Single Exposure, Category 3
Specific Target Organ Toxicity Repeat Exposure, Category 2

Hazard Statements:

Causes mild skin irritation.
Causes serious eye irritation.
May cause respiratory irritation.

May cause cancer.
May cause damage to lungs through prolonged or repeated inhalation.

Precautionary Statements:

Prevention:

Obtain special instructions before use.
Do not handle until all instructions have been read and understood.
Do not breathe dust.
Wash hands, forearms, and other exposed areas thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear eye and face protection.
Use personal protective equipment as required.

Response:

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Rinse skin with water. Wash with plenty of soap and water.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
IF exposed or concerned: Get medical advice or attention.
Specific treatment (see Section 4)

Storage:

Store locked up.
Store in a dry, well-ventilated place.
Keep product sealed in original packaging until use.

Disposal:

Dispose of contents and container in accordance with local, regional, national, and international regulations.

Section 3 Composition/Information on Ingredients

Chemical Name:	Common Name:	CAS #:	Weight %:*
Calcium aluminate cement	Calcium aluminate cement	65997-16-2	<50%
Fly Ash	Fly ash	68131-74-8	<40%
Crystalline silica	Masonry sand	14808-60-7	<30%
Respirable fraction, all sources			<2%
Fibrous glass	Chopped fiberglass strands	65997-17-3	<5%
Proprietary admixtures*	Concrete admixtures	Varies*	<5%

*Proprietary admixtures and weight percentages are claimed as trade secrets of The Strong Company, Inc.

Section 4 First-Aid Measures

Inhalation:	Remove to well-ventilated place. If breathing difficulty occurs, administer oxygen. Seek medical help if coughing and other medical symptoms do not subside.
Eye Contact:	Immediately flush eyes with copious amounts of water. Continue flushing for 15 minutes including under the lids to remove all particles. Call a physician immediately if irritation persists.
Skin Contact:	Wash skin with pH-neutral soap and water. Apply moisture renewing lotions to heal dry, irritated skin. Seek medical attention in all cases of severe irritation or burns.
Ingestion:	Do NOT induce vomiting. If conscious, have the victim drink plenty of water and call a physician immediately.

Section 5 Fire-Fighting Measures

General Hazards:	Product is not hazardous during normal fire-fighting procedures and contains less than 1% organic substances that may produce smoke, fumes, and/or hazardous gases.
Extinguishing Media:	Carbon dioxide, water, dry chemical, or foam may be used if smoldering occurs.
Fire-Fighting Protection:	No special protection required.
Fire and/or Explosion Hazards:	No fire or explosion hazards.
Hazardous Combustion Products:	Smoke, fumes, carbon dioxide, or carbon monoxide may be released.

Section 6 Accidental Release Measures

Steps to Take in Case Material is Released or Spilled:	Product is not considered hazardous according to RCRA (40 CFR Part 261). Follow personal protective equipment recommendations found in Section 8 of this SDS at a minimum. Avoid creating dust and use adequate ventilation and/or dust collection during clean-up. Shovel or vacuum product into a sealed container pending a waste disposal evaluation. Do not discharge into lakes, ponds, streams, or waterways.
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Section 7 Handling and Storage

Handling:	Avoid creating and breathing dust. At a minimum, follow personal protective equipment recommendations found in Section 8 of this SDS.
Storage:	Product reacts with water. Store product in a dry location. Keep packaging sealed until use.

Section 8 Exposure Controls/Personal Protection

Chemical Name:	OSHA PEL		ACGIH TLV
	Total Dust:	Respirable Fraction:	TWA:
Calcium aluminate cement	15 mg/m ³	5 mg/m ³	10 mg/m ³
Fly ash	15 mg/m ³	5 mg/m ³	10 mg/m ³
Crystalline silica	N/A	0.05 mg/m ³	0.025 mg/m ³
Fibrous glass	15 mg/m ³	5 mg/m ³	10 mg/m ³
Proprietary admixtures	15 mg/m ³	5 mg/m ³	10 mg/m ³

Control Parameters

Engineering Measures:	Use local exhaust ventilation or other engineering controls to reduce dust concentrations below overexposure levels. Refer to ACGIH publication "Industrial Ventilation" or similar publications for design of ventilation systems.
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Personal Protective Equipment (PPE)

Respiratory Protection:	Respirators are recommended during normal operation. When concentrations exceed PEL limits, respirator use is required.
Respirator Type(s):	N95 filtering facepiece or P95 half facepiece respirators are adequate for use during normal operation.
Eye Protection:	Wear tight fitting safety goggles to prevent contact with the eyes. Contact lenses should not be worn when handling products containing cement.
Skin Protection:	Wear impervious, alkali resistant gloves, closed-toe shoes or boots, and protective clothing to prevent contact with the skin.
Glove Type(s):	Nitrile or latex gloves with a recommended thickness of 6 mils or greater.

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Section 9 Physical and Chemical Properties

Formula:	See Section 3	Specific Gravity:	Varies (mixture)
Appearance:	Gray to brown powder	Vapor Pressure:	N/A (solid)
Odor:	Odorless	Evaporation Rate (BuAc = 1):	N/A (solid)
Lower Flammability Limit:	Not combustible	Vapor Density (Air = 1):	N/A (solid)
pH:	9 – 11 (10% slurry in water)	Solubility in Water:	<1%
Melting Point:	N/A	Viscosity:	N/A (solid)
Boiling Point:	N/A	Volatile Organic Compounds:	N/A

Section 10 Stability and Reactivity

Reactivity:	Reacts readily with water and produces an exothermic reaction (heat).
Stability:	Stable under normal conditions.
Conditions to Avoid:	Unintentional contact with water.
Incompatible Materials:	Acids violently react with product and generate a large amount of heat.
Hazardous Decomposition Products:	None known.
Hazardous Polymerization:	Will not occur.

Section 11 Toxicological Information

Route(s) of Entry:	Inhalation, eye contact, skin contact, ingestion
Target Organs:	Acute: Eyes, Respiratory System, Skin, Stomach Chronic: Respiratory System, Immune System, Skin, Kidneys, Joints
Acute Symptoms:	Inhalation of the product can irritate the nose and respiratory tract causing inflammation, sneezing, runny nose, and/or coughing. Contact with moist tissues areas such as the eyes and nose can cause mild irritation. Skin contact can cause dryness or cracking and trigger dermatitis in sensitive individuals. Ingestion of small amounts may cause nausea and is not known to be harmful.
Delayed Symptoms:	None known.
Chronic Symptoms:	Prolonged or repeated exposure to dust may lead to a benign form of pneumoconiosis. Crystalline silica is listed by the IARC as a known carcinogen and causes the chronic lung disease known as silicosis. Silicosis is known to increase the risk of contracting tuberculosis. Crystalline silica has also been shown to lead to autoimmune and renal disorders.

Acute Toxicity

Chemical Name:	CAS #:	Oral LD50:	Dermal LD50:	Inhalation LC50:
Calcium aluminate cement	65997-16-2	Not determined	Not determined	Not determined
Fly ash	68131-74-8	Not determined	Not determined	Not determined
Crystalline silica	14808-60-7	Not determined	Not determined	Not determined
Fibrous glass	65997-17-3	Not determined	Not determined	Not determined
Proprietary admixtures	Varies	Not determined	Not determined	Not determined

Carcinogenicity

Chemical Name:	CAS #:	IARC:	NTP:	OSHA:
Calcium aluminate cement	65997-16-2	Not listed	Not listed	Not listed
Fly ash	68131-74-8	Not listed	Not listed	Not listed
Crystalline silica	14808-60-7	Listed, Group 1	Listed, Known	Not listed
Fibrous glass	65997-17-3	Not listed	Not listed	Not listed
Proprietary admixtures	Varies	Not listed	Not listed	Not listed

Section 12 Ecological Information

Overview: Product is not expected to present an ecological hazard.
Mobility: Product is a solid and is expected to have low to zero mobility in soil.
Persistence: Product is expected to persist in the environment for an extensive period of time as it changes from a fine powder to a hard solid when exposed to water.
Degradability: Product is not expected to biodegrade quickly.
Other Adverse Effects: None known.

Section 13 Disposal Considerations

Overview: Not considered a hazardous waste under RCRA 40 CFR Part 261.
Disposal Methods: Dispose of in accordance with local, state, and federal regulations. Always contact a permitted waste disposer to ensure compliance. Refer to Section 8 to minimize exposure.
Waste Disposal Code(s): N/A

Section 14 Transport Information

Overview: Not considered a hazardous substance under U.S. DOT regulations.
UN No.: N/A **Hazard Class:** N/A
UN Shipping Name: N/A **Packing Group No.:** N/A

Section 15 Regulatory Information

OSHA HCS: The components of this product are considered hazardous chemicals under this regulation and should be included in an employer's Hazard Communication Program.
TSCA Status: All non-proprietary components in this product are on the TSCA Inventory.
FHSA: This product is considered a hazardous substance under the act and is subject to its statutes.

Reporting Requirements: Chemical Name:	EPCRA (SARA Title III)					CERCLA 40 CFR 302:	CAA 112(r)
	§ 302:	§ 304:	§ 311:	§ 312:	§ 313:		
Calcium aluminate cement	No	No	Yes, 10,000 lb	Yes, 10,000 lb	No	No	No
Fly ash	No	No	Yes, 10,000 lb	Yes, 10,000 lb	No	No	No
Crystalline silica	No	No	Yes, 10,000 lb	Yes, 10,000 lb	No	No	No
Fibrous glass	No	No	Yes, 10,000 lb	Yes, 10,000 lb	No	No	No
Proprietary admixtures	No	No	Yes, 10,000 lb	Yes, 10,000 lb	No	No	No

California Prop. 65: Components of this product are known to the State of California to cause cancer, birth defects, or reproductive harm.

Section 16 Other Information

The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to The Strong Company, Inc. that we believe to be accurate. The Strong Company, Inc. makes no representation or guarantee as to the suitability of this information to a particular application of this product covered in this (Material) Safety Data Sheet. Users have the responsibility to comply with all health, safety, and environmental laws and regulations when using this product and should determine the suitability of this product for its intended use.

Glossary

ACGIH	American Conference of Governmental Industrial Hygienists	IARC	International Agency for Research on Cancer
		LD(C)50	Median Lethal Dose (Concentration)
CAA	Clean Air Act	OSHA	Occupational Safety and Health Administration
CAS	Chemical Abstract Service Number	PEL	Permissible Exposure Limit
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	N/A	Not Available or Not Applicable
CFR	Code of Federal Regulations	NTP	National Toxicology Program
DOT	U.S. Department of Transportation	RCRA	Resource Conservation and Recovery Act
		SARA	Superfund Amendments and Reauthorization Act
EPCRA	Emergency Planning and Community Right-to-Know Act	TLV	Threshold Limit Value
		TSCA	Toxic Substances Control Act
FHSA	Federal Hazardous Substances Act	TWA	8-Hour Time Weighted Average
HCS	Hazard Communication Standard		

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