

# MS-2®A High Build Safety Data Sheet



Rev: 02-2018

## Section 1 Product Description

**Product Name:** Strong-Seal® MS-2®A High Build  
**Synonyms:** MS-2®A High Build, 2A High Build, High Build  
**General Use:** To stop leaks, restore structural integrity and provide corrosion protection to concrete and masonry wastewater structures.  
**Product Description:** A portland 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;



**Warning:** This product can expose you to chemicals including crystalline, silica, propylene oxide, ethylene oxide, and 1,4-Dioxane, which are known to the state of California to cause cancer. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

### GHS Classification:

Skin Corrosion/Irritation, Category 1A  
Serious Eye Damage/Eye Irritation, Category 1  
Skin Sensitization, Category 1

Carcinogenicity, Category 1A  
Specific Target Organ Toxicity Single Exposure, Category 3  
Specific Target Organ Toxicity Repeat Exposure, Category 2

### Hazard Statements:

Causes severe skin burns and eye damage.  
Causes serious eye damage.  
May cause an allergic skin reaction.  
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.  
Contaminated work clothing must not be allowed out of the workplace.  
Wear protective gloves, clothing, and eye and face protection.  
Use personal protective equipment as required.

#### Response:

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash with plenty of soap and water. Wash contaminated clothing before reuse.  
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: Immediately call a POISON CENTER or physician.  
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.

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### Section 3 Composition/Information on Ingredients

| Chemical Name:                   | Common Name:               | CAS #:     | Weight %:* |
|----------------------------------|----------------------------|------------|------------|
| Portland cement                  | Portland cement            | 65997-15-1 | <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

|                      |   |
|----------------------|---|
| <b>Inhalation:</b>   | Remove to well-ventilated place. If breathing difficulty occurs, administer oxygen. Seek medical help if coughing and other medical symptoms do not subside.                                  |
| <b>Eye Contact:</b>  | 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. |
| <b>Skin Contact:</b> | 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.                     |
| <b>Ingestion:</b>    | Do NOT induce vomiting. If conscious, have the victim drink plenty of water and call a physician immediately.   |

### Section 5 Fire-Fighting Measures

|                                       |   |
|---------------------------------------|---|
| <b>General Hazards:</b>               | 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. |
| <b>Extinguishing Media:</b>           | Carbon dioxide, water, dry chemical, or foam may be used if smoldering occurs.  |
| <b>Fire-Fighting Protection:</b>      | No special protection required.   |
| <b>Fire and/or Explosion Hazards:</b> | No fire or explosion hazards.   |
| <b>Hazardous Combustion Products:</b> | Smoke, fumes, carbon dioxide, or carbon monoxide may be released.   |

### Section 6 Accidental Release Measures

|   |  |
|---|--|
| <b>Steps to Take in Case Material is Released or Spilled:</b> | 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. |
|---|--|

### Section 7 Handling and Storage

|                  |   |
|------------------|---|
| <b>Handling:</b> | Avoid creating and breathing dust. At a minimum, follow personal protective equipment recommendations found in Section 8 of this SDS. |
| <b>Storage:</b>  | 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:                    |
| Portland cement        | 15 mg/m <sup>3</sup> | 5 mg/m <sup>3</sup>    | 10 mg/m <sup>3</sup>    |
| Fly ash                | 15 mg/m <sup>3</sup> | 5 mg/m <sup>3</sup>    | 10 mg/m <sup>3</sup>    |
| Crystalline silica     | N/A                  | 0.05 mg/m <sup>3</sup> | 0.025 mg/m <sup>3</sup> |
| Fibrous glass          | 15 mg/m <sup>3</sup> | 5 mg/m <sup>3</sup>    | 10 mg/m <sup>3</sup>    |
| Proprietary admixtures | 15 mg/m <sup>3</sup> | 5 mg/m <sup>3</sup>    | 10 mg/m <sup>3</sup>    |

#### Control Parameters

|                              |   |
|------------------------------|---|
| <b>Engineering Measures:</b> | 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. |
|------------------------------|---|

#### Personal Protective Equipment (PPE)

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

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**Section 9 Physical and Chemical Properties**

|                                  |                               |                                     |                  |
|----------------------------------|-------------------------------|-------------------------------------|------------------|
| <b>Formula:</b>                  | See Section 3                 | <b>Specific Gravity:</b>            | Varies (mixture) |
| <b>Appearance:</b>               | Gray to brown powder          | <b>Vapor Pressure:</b>              | N/A (solid)      |
| <b>Odor:</b>                     | Odorless                      | <b>Evaporation Rate (BuAc = 1):</b> | N/A (solid)      |
| <b>Lower Flammability Limit:</b> | Not combustible               | <b>Vapor Density (Air = 1):</b>     | N/A (solid)      |
| <b>pH:</b>                       | 11 – 13 (10% slurry in water) | <b>Solubility in Water:</b>         | <1%              |
| <b>Melting Point:</b>            | N/A                           | <b>Viscosity:</b>                   | N/A (solid)      |
| <b>Boiling Point:</b>            | N/A                           | <b>Volatile Organic Compounds:</b>  | N/A              |

**Section 10 Stability and Reactivity**

|  |   |
|--|---|
| <b>Reactivity:</b>                       | Reacts readily with water and produces an exothermic reaction (heat) and caustic calcium hydroxide.   |
| <b>Stability:</b>                        | Stable under normal conditions.   |
| <b>Conditions to Avoid:</b>              | Unintentional contact with water.   |
| <b>Incompatible Materials:</b>           | Aluminum powder and other alkali and alkaline earth elements react with product to liberate hydrogen gas. Acids violently react with product and generate a large amount of heat. Hydrofluoric acid will dissolve the silica found in portland cement, fly ash, and masonry sand. |
| <b>Hazardous Decomposition Products:</b> | None known.   |
| <b>Hazardous Polymerization:</b>         | Will not occur.   |

**Section 11 Toxicological Information**

|                           |   |
|---------------------------|---|
| <b>Route(s) of Entry:</b> | Inhalation, eye contact, skin contact, ingestion  |
| <b>Target Organs:</b>     | Acute: Eyes, Respiratory System, Skin, Stomach<br>Chronic: Respiratory System, Immune System, Skin, Kidneys, Joints   |
| <b>Acute Symptoms:</b>    | 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 to severe burns or even blindness. These areas should be flushed with water immediately. 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; however, ingestion of large amounts can lead to severe burns of the mouth, throat, stomach, and digestive tract. |
| <b>Delayed Symptoms:</b>  | Prolonged skin and moist tissue contact can lead to delayed chemical burns that may range from mild to third degree. Burns can develop with little to no warning as pain or discomfort is normally not felt immediately after contact. Full extent of the damage may not be felt until several hours after contact. As such, pain or discomfort should not be used to determine the severity of burns. Always use pH-neutral soap and water to immediately wash areas that were exposed.  |
| <b>Chronic Symptoms:</b>  | Prolonged or repeated exposure to dust may lead to a benign form of pneumoconiosis. Dermatitis may occur in individuals with repeated exposure due to the presence of small amounts of hexavalent chromium in portland cement. 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**

| <b>Chemical Name:</b>  | <b>CAS #:</b> | <b>Oral LD50:</b> | <b>Dermal LD50:</b> | <b>Inhalation LC50:</b> |
|------------------------|---------------|-------------------|---------------------|-------------------------|
| Portland cement        | 65997-15-1    | 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**

| <b>Chemical Name:</b>  | <b>CAS #:</b> | <b>IARC:</b>    | <b>NTP:</b>   | <b>OSHA:</b> |
|------------------------|---------------|-----------------|---------------|--------------|
| Portland cement        | 65997-15-1    | 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   |

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**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<br>40 CFR 302: | CAA<br>112(r) |
|------------------------|------------------------|--------|----------------|----------------|--------|-----------------------|---------------|
|                        | § 302:                 | § 304: | § 311:         | § 312:         | § 313: |                       |               |
| Portland 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   |
| CAA    | Clean Air Act   | LD(C)50 | Median Lethal Dose (Concentration)            |
| CAS    | Chemical Abstract Service Number                                      | OSHA    | Occupational Safety and Health Administration |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act | PEL     | Permissible Exposure Limit                    |
| CFR    | Code of Federal Regulations   | N/A     | Not Available or Not Applicable               |
| DOT    | U.S. Department of Transportation                                     | NTP     | National Toxicology Program                   |
| EPCRA  | Emergency Planning and Community Right-to-Know Act                    | RCRA    | Resource Conservation and Recovery Act        |
| FHSA   | Federal Hazardous Substances Act                                      | SARA    | Superfund Amendments and Reauthorization Act  |
| HCS    | Hazard Communication Standard   | TLV     | Threshold Limit Value                         |
|        |   | TSCA    | Toxic Substances Control Act                  |
|        |   | TWA     | 8-Hour Time Weighted Average                  |