



# Safety Data Sheet

## Concrete Mixes

### Section 1: Identification

Product: Concrete Mixes

Synonyms: Exterior Concrete Mix, Accel-A-Crete, Concrete Sand Mix, Concrete 4000 Mix, Concrete 5000HS Mix

Product Use: Formulated for use in various small projects in the construction industry.

Manufacturer: **Mortar Technologies**, A Division of LYCON Inc.

4980 Wildlife Road

Hartford, WI 53027

Phone: 262-644-7401

Phone: 877-599-5090

Fax: 262-644-4011

Emergency Phone: 608-754-7701

[www.lyconinc.com](http://www.lyconinc.com)

### Section 2: Hazard(s) Identification

#### GHS LABEL ELEMENTS:

##### Symbol(s)



##### Signal Word

Warning!

##### Hazard Statements

Harmful if inhaled.

Harmful if swallowed.

Harmful in contact with skin.

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

Causes damage to organs through prolonged or repeated exposure (lungs).

Harmful to aquatic life.

##### Precautionary Statements

###### Prevention

Do not breathe dust.

Wear protective gloves/protective clothing/eye protection/face protection.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

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

###### Response

If inhaled: Remove to fresh air, seek medical attention if breathing becomes difficult or other symptoms do not subside.

If swallowed: Rinse mouth. Do NOT induce vomiting. If conscious, drink plenty of water. Immediately call a poison center or physician.

If on skin: Wash skin with cool water and a pH-neutral soap. Seek medical attention if irritation or inflammation develops or persists.

In the eyes: Immediately flush eye thoroughly with water for at least 15 minutes, including under the lid. Remove contact lenses, if worn. If irritation persists, seek medical attention.

Take off contaminated clothing and wash it before reuse.

###### Disposal

Dispose in accordance with State, Federal and Local regulations.



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### Section 3: Composition/Information on Ingredients

Component	Percent* (By Weight)	CAS Number	OSHA PEL – TWA (mg/m <sup>3</sup> )	ACGIH TLV – TWA (mg/m <sup>3</sup> )
Portland Cement	10-20	65997-15-1	15 (T); 5 (R)	10 (T)
Fly Ash	1-6	68131-74-8	15 (T); 5 (R)	10 (T)
Crystalline Silica (Sand & Gravel)	35-85	14808-60-7	[(10) / (%SiO <sub>2</sub> +2)] (R); [(30) / (%SiO <sub>2</sub> +2)] (T)	0.025 (R)

(T) = Total Particulate

(R) = Respirable Particulate

\* Varies on Type of Mix

### General Product Information

Trace Elements: Concrete Mixes are made from materials mined from the earth. Trace amounts of naturally occurring elements might be detected during chemical analysis of these materials.

### Section 4: First-Aid Measures

#### Eyes

Immediately flush eyes thoroughly with water. Continue flushing eyes for at least 15 minutes, including under the lids, to remove all particles. Remove contact lens if wearing. Call physician if irritation persists.

#### Skin

Wash skin with cool water and pH-neutral soap or a mild detergent intended to be used on the skin. Seek medical attention if irritation is caused by prolonged exposure to wet cement or prolonged wet skin exposure to the dry ingredients in the Concrete Mix.

#### Ingestion

Do NOT induce vomiting. Rinse mouth. If conscious, give plenty of water to drink and call a physician immediately.

#### Inhalation

Remove to fresh air. Seek medical attention if coughing and other symptoms do not subside. Inhalation of large amounts of dry ingredients in the Concrete Mix requires immediate medical attention.

### Section 5: Fire-Fighting Measures

#### General Fire Hazards

See Section 9 for Flammability Properties.

Non-Combustible

#### Hazardous Combustion Products

None

#### Extinguishing Media

Use appropriate extinguishing media for surrounding fire.

#### Unsuitable Extinguishing Media

None

#### Fire Fighting Equipment/Instructions

Avoid breathing dust.

Wet cement is caustic.

Firefighters should wear full protective gear.

### Section 6: Accidental Release Measures

#### General

Place spilled material into a container. Avoid actions that cause the Concrete Mix to become airborne. Avoid inhalation of dust and contact with skin. Wear appropriate protective equipment as described in Section 8. Scrape wet Concrete Mix and place in container. Allow material to dry or solidify before disposal. Do not wash Concrete Mix down sewage and drainage systems or into bodies of water (e.g. streams).



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### Waste Disposal Method

Dispose of Concrete Mix according to State, Federal and Local regulations.

## Section 7: Handling and Storage

### General

Keep bulk and bagged Concrete Mixes dry until used. Stack bagged material in a secure manner to prevent falling. Bagged Concrete Mixes are heavy and pose risks such as sprains and strains to the back, arms, shoulders, and legs during lifting and mixing. Handle with care and use appropriate control measures.

### Usage

Cutting, crushing or grinding hardened cement or other crystalline silica bearing materials will release respirable crystalline silica. Use all appropriate measures of dust control or suppression, and Personal Protective Equipment (PPE) described in Section 8.

### Housekeeping

Avoid actions that cause dust to become airborne during clean-up such as dry sweeping or using compressed air. Use HEPA vacuum or thoroughly wet with water to clean-up dust. Use PPE described in Section 8. Avoid any dust buildup by frequent cleaning of the storage area.

### Clothing

Promptly remove and launder clothing that is dusty or wet with cement. Thoroughly wash skin after exposure to dust or wet cement.

## Section 8: Exposure Controls/Personal Protection

### Engineering Controls

Use local exhaust or general dilution ventilation or other suppression method to maintain dust levels below exposure limits.

### Respiratory Protection

Under ordinary conditions no respirator protection is required. A NIOSH approved dust mask that is properly fitted and is in good working is recommended in poorly ventilated areas or when exposed to dust above exposure limits.

### Eye Protection

Wear ANSI approved safety glasses with side shields or safety goggles when handling dust or wet cement to prevent contact with eyes. Wearing contact lenses when using Concrete Mixes, under dusty conditions, is not recommended.

### Skin Protection

Wear gloves, boots and protective clothing (long sleeve shirt and pants) impervious to water to prevent skin contact. Do not rely on barrier creams, in place of impervious gloves. Remove clothing and protective equipment that becomes saturated with wet cement and immediately was exposed areas.

### Hygienic Practices

Wash dust exposed skin with soap and water before eating, drinking, smoking and using toilet facilities. Shower with soap and water after completion of work.

## Section 9: Physical and Chemical Properties

<b>Physical State:</b>	Solid (powder)	<b>Evaporation Rate:</b>	NA
<b>Appearance:</b>	Gray powder	<b>pH (in water):</b>	12-13
<b>Odor:</b>	None	<b>Boiling Point:</b>	NA
<b>Vapor Pressure:</b>	NA	<b>Melting Point:</b>	NA
<b>Vapor Density</b>	NA	<b>Viscosity:</b>	NA
<b>Specific Gravity:</b>	2.60	<b>Solubility in Water:</b>	Slightly
<b>Ignition:</b>	Non-Flammable	<b>Flash point:</b>	NA

## Section 10: Stability and Reactivity

### Stability

Stable. Keep dry until use. Cement reacts with water, resulting in a slight release of heat, depending on the amount of lime (Calcium oxide) present. Avoid contact with incompatible materials.



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### Incompatibility

Wet cement is alkaline and is incompatible with acids, ammonium salts and aluminum metal. Cement dissolves in hydrofluoric acid, producing corrosive silicon tetrafluoride gas. Cement reacts with water to form silicates and calcium hydroxide. Silicates react with powerful oxidizers such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, and oxygen difluoride.

**Hazardous Polymerization** None.

**Hazardous Decomposition** None.

**Conditions to Avoid** Moisture, product will harden.

## Section 11: Toxicological Information

### Likely Routes of Exposure:

Skin contact, skin absorption, eye contact, inhalation, and ingestion.

### Potential Health Effects: Skin Corrosion

Discomfort or pain cannot be relied upon to alert a person to a hazardous skin exposure. Consequently, the only effective means of avoiding skin injury or illness involves minimizing skin contact, particularly contact with wet Concrete Mixes. Exposed persons may not feel discomfort until hours after the exposure has ended and significant injury has occurred. Exposure during the handling or mixing of the dry ingredients in Concrete Mixes may cause drying of the skin with consequent mild irritation or more significant effects attributable to aggravation of other conditions. Exposure to wet Concrete Mixes may cause more severe skin effects including thickening, cracking or fissuring of the skin. Prolonged exposure can cause severe skin damage in the form of (caustic) chemical burns, including third degree burns.

### Potential Health Effects: Eye Damage

Exposure to airborne dust during the sawing of hardened concrete or handling/mixing of the dry ingredients in Concrete Mixes may cause immediate or delayed irritation or inflammation. Eye contact by splashes of wet Concrete Mixes may cause effects ranging from moderate eye irritation to chemical burns. Such exposures require immediate first aid (see Section 4) and medical attention to prevent significant damage to the eye.

### Potential Health Effects: Ingestion

Although inadvertent ingestion of small quantities of wet concrete mix or its dry ingredients are not known to be harmful, accidental ingestion of larger quantities can be harmful and requires immediate medical attention.

### Potential Health Effects: Inhalation (Acute)

The ingredients in Concrete Mixes contain crystalline silica. Exposure to these ingredients in excess of the applicable TLV or PEL may cause or aggravate other lung conditions. Exposure to the dry ingredients in Concrete Mixes may cause irritation to the moist mucous membranes of the nose, throat, and upper respiratory system.

### Carcinogenicity

#### General Product Information (Chronic)

May cause cancer.

Crystalline Silica: Exposures to respirable crystalline silica are not expected during the normal use of this product. Prolonged and repeated exposure to airborne free respirable crystalline silica can result in lung disease and/or lung cancer. IARC states that crystalline silica in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1).

#### Component Carcinogenicity

##### Cement, portland, chemicals

ACGIH: Not Classifiable as a Human Carcinogen. However, cement contains trace amounts of crystalline silica and hexavalent chromium which are classified by the IARC and NTP as known human carcinogens.

##### Crystalline Silica, Quartz

ACGIH: Suspected Human Carcinogen

NIOSH: Potential Occupational Carcinogen

NTP: Known Human Carcinogen

IARC: Monograph 100C [2012] Crystalline silica in the form of quartz or cristobalite is carcinogenic to humans (Group 1)

### Reproductive Toxicity

This product is not reported to have any reproductive toxicity effects.

### Specific Target organ General Toxicity: Single Exposure

This product is not reported to have any single exposure specific target organ toxicity effects.



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### Specific Target Organ General Toxicity: Repeated Exposure

Causes damage to organs through prolonged or repeated exposure (lungs).

### Aspiration Respiratory Organ hazard

This product is not reported to have any aspiration hazards.

## Section 12: Ecological Information (non-mandatory)

Seek information from appropriate regulatory agencies.

## Section 13: Disposal Considerations (non-mandatory)

### Waste Disposal Instructions

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

### Disposal of Contaminated Container or Packaging

Dispose of contents/container in accordance with State, Federal and Local regulations.

## Section 14: Transport Information (non-mandatory)

This product is not classified as a Hazardous Material under U.S. DOT regulations.

## Section 15: Regulatory Information (non-mandatory)

### OSHA/MSHA Hazard Communication

This product is considered by OSHA/MSHA to be a hazardous chemical and should be included in the employer's hazard communication program.

### CERCLA/SUPERFUND

This **product** is not listed as a CERCLA hazardous substance.

## Section 16: Other Information

### Abbreviations

PPE	Personal Protective Equipment	NA	Not Applicable
ACGIH	American Conference of Governmental Industrial Hygienists	NIOSH	National Institute for Occupational Safety and Health
DOT	U.S. Department of Transportation	NTP	National Toxicology Program
HMIS	Hazardous Materials Identification System	PEL	Permissible Exposure Limit
IARC	International Agency for Research on Cancer	OSHA	Occupational Safety and Health Administration
MSHA	Mine Safety and Health Administration	pH	Negative log of hydrogen ions
TLV	Threshold Limit Value		

HMIS: Health-4, Flammability-, Reactivity-

HMIS Definitions: 4-Minimal, 3-Moderate, 2-Serious, 1-Extreme, Blank-No Hazard

Protective Equipment: Safety glasses, gloves, impervious clothing, respirator recommended

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