

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
 Product name : Longleaf High Strength Concrete Mix  
 Product code : Not available

#### 1.2. Recommended use and restrictions on use

Use of the substance/mixture : Concrete mix for installation of slabs, stairs, patios, repairs.

#### 1.3. Supplier

##### Manufacturer

Longleaf Packaging, LLC  
 621 Good Farm Rd.  
 Vance, SC 29163 - USA  
 T +1-803-857-8086

#### 1.4. Emergency telephone number

Emergency number : CHEMTREC (800) 424-9300

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS US classification

Skin Corr. 1  
 Eye Dam. 1  
 Carc. 1A  
 STOT SE 3  
 STOT RE 1

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

Causes severe skin burns and eye damage  
 May cause respiratory irritation  
 May cause cancer  
 Causes damage to organs through prolonged or repeated exposure

Precautionary statements (GHS US) :

Obtain special instructions before use.  
 Do not handle until all safety precautions have been read and understood.  
 Do not breathe dust, fume, gas, mist, spray, vapors.  
 Wash hands thoroughly after handling.  
 Do not eat, drink or smoke when using this product.  
 Use only outdoors or in a well-ventilated area.  
 Wear eye protection, face protection, protective clothing, protective gloves.  
 If exposed or concerned: Get medical advice/attention.  
 If swallowed: rinse mouth. Do NOT induce vomiting  
 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower  
 Wash contaminated clothing before reuse.  
 If inhaled: Remove person to fresh air and keep comfortable for breathing  
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 Immediately call a poison center or doctor  
 Get medical advice/attention if you feel unwell.  
 Store in a well-ventilated place. Keep container tightly closed.  
 Store locked up.

# Longleaf High Strength Concrete Mix

## Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

### 2.3. Other hazards which do not result in classification

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%
Quartz	(CAS-No.) 14808-60-7	60 - 90
Silica, amorphous	(CAS-No.) 7631-86-9	40 - 80
Aluminum oxide (Al <sub>2</sub> O <sub>3</sub> )	(CAS-No.) 1344-28-1	10 - 20
Magnesium oxide (MgO)	(CAS-No.) 1309-48-4	2 - 15
Sodium oxide (Na <sub>2</sub> O)	(CAS-No.) 1313-59-3	2 - 12
Cement, portland, chemicals	(CAS-No.) 65997-15-1	7 - 13
Calcium oxide	(CAS-No.) 1305-78-8	1 - 8
Titanium dioxide	(CAS-No.) 13463-67-7	1 - 5
Potassium oxide	(CAS-No.) 12136-45-7	1 - 4
Iron oxide (Fe <sub>2</sub> O <sub>3</sub> )	(CAS-No.) 1309-37-1	<= 3

\*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

- First-aid measures after inhalation : If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center or doctor/physician.
- First-aid measures after skin contact : If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor.
- First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.
- First-aid measures after ingestion : IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Immediately call a POISON CENTER or doctor.

### 4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects after inhalation : May cause irritation to the respiratory tract. May cause burns to the respiratory tract.
- Symptoms/effects after skin contact : Causes severe skin burns. Symptoms may include redness, pain, blisters. May cause burns in the presence of moisture. Skin contact during hydration may slowly develop sufficient heat that may cause severe burns possibly resulting in permanent injury. Do not allow product to harden around any body part or allow continuous, prolonged contact with skin. Handling can cause dry skin
- Symptoms/effects after eye contact : Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns in the presence of moisture.
- Symptoms/effects after ingestion : May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

### 4.3. Immediate medical attention and special treatment, if necessary

Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
- Unsuitable extinguishing media : Do not use water jet. Contact with water will generate considerable heat.

### 5.2. Specific hazards arising from the chemical

- Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon. Metal oxides.

# Longleaf High Strength Concrete Mix

## Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

### 5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

#### 6.1.1. For non-emergency personnel

No additional information available

#### 6.1.2. For emergency responders

No additional information available

### 6.2. Environmental precautions

Prevent entry to sewers and public waters.

### 6.3. Methods and material for containment and cleaning up

For containment : Contain spill, then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

Methods for cleaning up : Vacuum or sweep material and place in a disposal container. Provide ventilation. Minimize generation of dust.

### 6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection"

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Do not get in eyes, on skin, or on clothing. Do not breathe dust. Do not swallow. Avoid generating dust. Good housekeeping is important to prevent accumulation of dust. The use of compressed air for cleaning clothing, equipment, etc, is not recommended. Handle and open container with care. When using do not eat, drink or smoke. Use only outdoors or in a well-ventilated area.

Hygiene measures : Wash contaminated clothing before reuse. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep out of the reach of children. Keep container tightly closed. Protect from moisture. Keep away from food, drink and animal feeding equipment and food products. Store in a dry, cool and well-ventilated place. Do not store in an area equipped with emergency water sprinklers. Keep from freezing.

Storage area : Store away from heat.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Quartz (14808-60-7)		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	0.025 mg/m <sup>3</sup> (respirable particulate matter)
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	50 µg/m <sup>3</sup>
OSHA	Remark (OSHA)	Table Z-3. For OSHA PEL (TWA) use formula: (30 mg/m <sup>3</sup> / (%SiO <sub>2</sub> +2)) for mg/m <sup>3</sup> . CAS No. source: eCFR Table Z-1.
OSHA	Regulatory reference (US-OSHA)	OSHA Annotated Table Z-3 Mineral Dusts
IDLH	US IDLH (mg/m <sup>3</sup> )	50 mg/m <sup>3</sup> (respirable dust)
NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	0.05 mg/m <sup>3</sup> (respirable dust)
Silica, amorphous (7631-86-9)		
IDLH	US IDLH (mg/m <sup>3</sup> )	3000 mg/m <sup>3</sup>
NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	6 mg/m <sup>3</sup>

# Longleaf High Strength Concrete Mix

## Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

<b>Aluminum oxide (Al<sub>2</sub>O<sub>3</sub>) (1344-28-1)</b>		
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable fraction)
<b>Magnesium oxide (MgO) (1309-48-4)</b>		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (inhalable particulate matter)
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup> (fume, total particulate)
IDLH	US IDLH (mg/m <sup>3</sup> )	750 mg/m <sup>3</sup> (fume)
<b>Cement, portland, chemicals (65997-15-1)</b>		
ACGIH	Local name	Portland cement
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> (particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter)
ACGIH	Remark (ACGIH)	Pulm func; resp symptoms; asthma
ACGIH	Regulatory reference	ACGIH 2017
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable fraction)
OSHA	OSHA PEL (TWA) (ppm)	50 mppcf
OSHA	Remark (OSHA)	Table Z-3. CAS No. source: eCFR Table Z-1.
OSHA	Regulatory reference (US-OSHA)	OSHA Annotated Table Z-3 Mineral Dusts
IDLH	US IDLH (mg/m <sup>3</sup> )	5000 mg/m <sup>3</sup>
NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable dust)
<b>Sodium oxide (Na<sub>2</sub>O) (1313-59-3)</b>		
Not applicable		
<b>Calcium oxide (1305-78-8)</b>		
ACGIH	Local name	Calcium oxide
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
ACGIH	Remark (ACGIH)	URT irr
ACGIH	Regulatory reference	ACGIH 2017
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
OSHA	Regulatory reference (US-OSHA)	OSHA
IDLH	US IDLH (mg/m <sup>3</sup> )	25 mg/m <sup>3</sup>
NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
<b>Titanium dioxide (13463-67-7)</b>		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup> (total dust)
IDLH	US IDLH (mg/m <sup>3</sup> )	5000 mg/m <sup>3</sup>
NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	2.4 mg/m <sup>3</sup> (CIB 63-fine) 0.3 mg/m <sup>3</sup> (CIB 63-ultrafine, including engineered nanoscale)
<b>Potassium oxide (12136-45-7)</b>		
Not applicable		
<b>Iron oxide (Fe<sub>2</sub>O<sub>3</sub>) (1309-37-1)</b>		
ACGIH	Local name	Iron oxide (Fe O )
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (respirable particulate matter)
ACGIH	Remark (ACGIH)	Pneumoconiosis
ACGIH	Regulatory reference	ACGIH 2018

# Longleaf High Strength Concrete Mix

## Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

Iron oxide (Fe <sub>2</sub> O <sub>3</sub> ) (1309-37-1)		
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> (fume) 15 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable fraction)
OSHA	Regulatory reference (US-OSHA)	OSHA
IDLH	US IDLH (mg/m <sup>3</sup> )	2500 mg/m <sup>3</sup> (dust and fume)
NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup> (dust and fume)

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.  
Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

#### Hand protection:

Wear suitable gloves resistant to chemical penetration

#### Eye protection:

Wear approved eye protection (properly fitted dust- or splash-proof chemical safety goggles) and face protection (face shield).

#### Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

#### Other information:

Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Powder.
Color	: Varies
Odor	: None
Odor threshold	: No data available
pH	: 12 - 13
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not flammable
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available

# Longleaf High Strength Concrete Mix

## Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

Oxidizing properties : No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No dangerous reactions known under normal conditions of use.

### 10.2. Chemical stability

Stable under normal storage conditions. Keep dry in storage.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Incompatible materials. Moisture. Keep from freezing.

### 10.5. Incompatible materials

Wet cement is alkaline and incompatible with acid, ammonium salts and aluminum metal.

### 10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. Metal oxides.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified  
Acute toxicity (dermal) : Not classified  
Acute toxicity (inhalation) : Not classified

<b>Silica, amorphous (7631-86-9)</b>	
LD50 oral rat	7900 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat	> 2.2 mg/l (Exposure time: 1 h)
<b>Aluminum oxide (Al<sub>2</sub>O<sub>3</sub>) (1344-28-1)</b>	
LD50 oral rat	> 5000 mg/kg
<b>Magnesium oxide (MgO) (1309-48-4)</b>	
LD50 oral rat	3870 mg/kg
<b>Titanium dioxide (13463-67-7)</b>	
LD50 oral rat	> 10000 mg/kg
<b>Iron oxide (Fe<sub>2</sub>O<sub>3</sub>) (1309-37-1)</b>	
LD50 oral rat	> 10000 mg/kg

Skin corrosion/irritation : Causes severe skin burns  
pH: 12 - 13  
Serious eye damage/irritation : Causes serious eye damage.  
pH: 12 - 13  
Respiratory or skin sensitization : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : May cause cancer.

<b>Quartz (14808-60-7)</b>	
IARC group	1 - Carcinogenic to humans
National Toxicology Program (NTP) Status	Known Human Carcinogens
In OSHA Hazard Communication Carcinogen list	Yes
<b>Silica, amorphous (7631-86-9)</b>	
IARC group	3 - Not classifiable
<b>Titanium dioxide (13463-67-7)</b>	
IARC group	2B - Possibly carcinogenic to humans

# Longleaf High Strength Concrete Mix

## Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

<b>Titanium dioxide (13463-67-7)</b>	
In OSHA Hazard Communication Carcinogen list	Yes

<b>Iron oxide (Fe<sub>2</sub>O<sub>3</sub>) (1309-37-1)</b>	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified  
Specific target organ toxicity – single exposure : May cause respiratory irritation.

<b>Cement, portland, chemicals (65997-15-1)</b>	
Specific target organ toxicity – single exposure	May cause respiratory irritation.

<b>Sodium oxide (Na<sub>2</sub>O) (1313-59-3)</b>	
Specific target organ toxicity – single exposure	May cause respiratory irritation.

Specific target organ toxicity – repeated exposure : Causes damage to organs through prolonged or repeated exposure.

<b>Quartz (14808-60-7)</b>	
Specific target organ toxicity – repeated exposure	Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified  
Symptoms/effects after inhalation : May cause irritation to the respiratory tract. May cause burns to the respiratory tract.  
Symptoms/effects after skin contact : Causes severe skin burns. Symptoms may include redness, pain, blisters. May cause burns in the presence of moisture. Skin contact during hydration may slowly develop sufficient heat that may cause severe burns possibly resulting in permanent injury. Do not allow product to harden around any body part or allow continuous, prolonged contact with skin. Handling can cause dry skin  
Symptoms/effects after eye contact : Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns in the presence of moisture.  
Symptoms/effects after ingestion : May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.  
Other information : Likely routes of exposure: ingestion, inhalation, skin and eye.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.

<b>Silica, amorphous (7631-86-9)</b>	
LC50 fish 1	5000 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])
EC50 Daphnia 1	7600 mg/l (Exposure time: 48 h - Species: Ceriodaphnia dubia)

<b>Calcium oxide (1305-78-8)</b>	
LC50 fish 1	1070 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [static])

### 12.2. Persistence and degradability

<b>Longleaf High Strength Concrete Mix</b>	
Persistence and degradability	Not established.

### 12.3. Bioaccumulative potential

<b>Longleaf High Strength Concrete Mix</b>	
Bioaccumulative potential	Not established.

<b>Silica, amorphous (7631-86-9)</b>	
BCF fish 1	(no bioaccumulation expected)

<b>Calcium oxide (1305-78-8)</b>	
BCF fish 1	(no bioaccumulation)

# Longleaf High Strength Concrete Mix

## Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

Other information : No other effects known.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Product/Packaging disposal recommendations : This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT

Not regulated

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

### 15.2. International regulations

No additional information available

### 15.3. US State regulations

**⚠ WARNING:** This product can expose you to Quartz, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## SECTION 16: Other information

Date of issue : 04/03/2019  
Revision date : 04/03/2019  
Other information : None.  
Prepared by : Nexreg Compliance Inc.  
[www.Nexreg.com](http://www.Nexreg.com)



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