



Ready-Mix Concrete

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 05/22/2018

Version: 2.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Product name : Ready-Mix Concrete

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Structural component

1.3. Details of the supplier of the safety data sheet

Colas Solutions, Inc.
7374 Main Street
Cincinnati, OH 45244
Customer Service: 1-888-369-3163

1.4. Emergency telephone number

Emergency number : 3E Company 1-800-451-8346

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Skin Irrit. 2 H315
Eye Dam. 1 H318
Skin Sens. 1 H317
STOT SE 3 H335

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :



GHS05

GHS07

Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H335 - May cause respiratory irritation

Precautionary statements (GHS-US) :

P261 - Avoid breathing dust/fumes/mist
P264 - Wash hands and other exposed areas thoroughly after handling
P271 - Use only outdoors or in a well-ventilated area
P272 - Contaminated work clothing must not be allowed out of the workplace
P280 - Wear protective gloves/protective clothing/eye protection
P302 + P352 - If on skin: Wash with plenty of water
P304 + P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P312 - Call a poison center/doctor if you feel unwell
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention
P362 - Take off contaminated clothing and wash before reuse

2.3. Other hazards

Other hazards not contributing to the classification

: Exposure to wet concrete can cause serious eye and skin burns. This same type of tissue damage can occur if wet or moist areas of the body are exposed for sufficient duration to the dry ingredients in unhardened concrete.

2.4. Unknown acute toxicity (GHS-US)

None of the ingredients are of unknown toxicity

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SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable – the product is a mixture

3.2. Mixture

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Name	Product identifier	%	Classification (GHS-US)
Aggregate (ie., Crushed Stone, Sand, Gravel)	None	36 - 92	Not classified
Cement, portland, chemicals	(CAS No) 65997-15-1	2 - 26	Skin Corr. 1A, H314 Skin Sens. 1B, H317 STOT SE 3, H335
Ashes, residues	(CAS No) 68131-74-8	0 - 25	Skin Irrit. 2, H315 Eye Irrit. 2B, H320 STOT SE 3, H335
Quartz	(CAS No) 14808-60-7	5 - 13	Acute Tox. 4 (Oral), H302 Carc. 1A, H350 STOT SE 3, H335
Water	(CAS No) 7732-18-5	6 - 13	Not classified

¹Contains <0.1% airborne crystalline silica

Cutting, grinding or chipping of hardened concrete may generate airborne crystalline silica.

Airborne crystalline silica will not be released during typical processing of wet concrete.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
First-aid measures after skin contact	: Wash with plenty of pH-neutral or slightly acidic soap and water. Wash contaminated clothing before reuse. Seek medical treatment in all cases of prolonged exposure to wet concrete, liquids from wet concrete products, or prolonged wet skin exposure to the dry ingredients of this product.
First-aid measures after eye contact	: 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	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation	: May cause respiratory irritation.
Symptoms/injuries after skin contact	: Causes skin irritation. May cause an allergic skin reaction.
Symptoms/injuries after eye contact	: Causes serious eye damage.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Product itself is not combustible.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including NIOSH approved positive-pressure breathing apparatus with full face mask and full protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures	: Evacuate unnecessary personnel.
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6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. Avoid contact with skin and eyes.
- Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : On land, sweep or shovel into suitable containers. Minimize generation of dust.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Avoid breathing dust/fume/mist. Use only outdoors or in a well-ventilated area.
- Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Not intended for storage.
- Incompatible materials : Wet product is alkaline and is incompatible with acids, ammonium salts and aluminum metal.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

SUBSTANCE	CAS No.	(8hr TWA)		(STEL)		Note:
		PEL (OSHA)	TLV (ACGIH)	PEL (OSHA)	TLV (ACGIH)	
Cement, portland, chemicals	-----	5 mg/m ³ *	1 mg/m ³ *	-----	-----	
Crystalline Silica (respirable particulate)	-----	0.05 mg/m ³ ^**	0.025 mg/m ³ ^**	-----	-----	See below

^Suspected Human Carcinogen; *Refer to OSHA 29 CFR 1910.1000 & 29 CFR 1926.55; ** Refer to OSHA 29 CFR 1910.1053 & 29 CFR 1926.1153; 8hr TWA = 8-hour time-weighted average; STEL = Short Term Exposure Limit.

Recommended monitoring method : NIOSH 0500 (Cement, Portland, chemicals), Appendix A to 29 CFR 1910.1053 (Crystalline Silica)

8.2. Exposure controls

- Appropriate engineering controls : Use only outdoors or in a well-ventilated area. Wear protective gloves.
- Hand protection : Wear protective, impervious gloves.
- Eye protection : Chemical goggles or safety glasses.
- Skin and body protection : Wear suitable protective clothing. Long-sleeved shirt and full-length trousers should be worn when working with wet product. Waterproof boots should be worn when standing in wet product and when necessary, wear protective knee pads.
- Respiratory protection : Not typically required. In those cases where exposures exceed occupational control limits a NIOSH approved respirator is recommended. Air-purifying respirator with combination organic vapor cartridge / particulate filter may be sufficient. Check with protective equipment manufacturer's data.
- Environmental exposure controls : Avoid release to the environment. Do not discharge waste and/or cleaning water via public sewer system. Ensure waste is collected and contained.
- Other information : Do not eat, drink or smoke during use. Hands and/or face should be washed before and after breaks and at the end of each shift.
- Follow all engineering and respiratory protection controls required by 29 CFR 1910.1053 and 29 CFR 1926.1153, as applicable, if airborne crystalline silica is generated.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Gray Granular Mixture
Color	: Gray
Odor	: Odorless
Odor threshold	: No data available
pH	: No data available
pH solution	: 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)	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Vapor pressure	: No data available
Relative density	: 1.7 - 3
Relative vapor density at 20 °C	: No data available
Solubility	: No data available
Log Pow	: No data available
Log Kow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Not expected under normal conditions of use.

10.2. Chemical stability

The product is stable under normal conditions of use.

10.3. Possibility of hazardous reactions

Not expected under normal conditions of use.

10.4. Conditions to avoid

Unintentional contact with water.

10.5. Incompatible materials

Wet product is incompatible with acids, ammonium salts and aluminum metal.

10.6. Hazardous decomposition products

Adding water produces (caustic) calcium hydroxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Quartz (14808-60-7)

LD50 oral rat	500 mg/kg
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Quartz (14808-60-7)	
ATE US (oral)	500.000 mg/kg body weight

Ashes, residues (68131-74-8)	
LD50 oral rat	> 2000 mg/kg

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified. This product contains less than 0.1% airborne crystalline silica.

Crystalline Silica (Quartz) (14808-60-7)	
IARC group	1 - Carcinogenic to humans
National Toxicology Program (NTP) Status	2 - Known Human Carcinogens
OSHA Hazard Communication Carcinogen list	Yes

Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: May cause respiratory irritation.
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: No additional information available
Symptoms/injuries after inhalation	: May cause an allergic skin reaction. May cause respiratory irritation.
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye damage.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

Ready-Mix Concrete	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Ready-Mix Concrete	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations	: Dispose in a safe manner in accordance with local, state and federal regulations. Consult an accredited waste disposal contractor or the local authority for advice.
Ecology - waste materials	: Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT
Not regulated for transport

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Additional information

ADR

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

TSCA (Toxic Substances Control Act) Inventory Status

All components are listed or are polymer exempt.

SARA 311/312 Hazard Categories

Skin corrosion or irritation
Serious eye damage or irritation
Respiratory or skin sensitization
Specific target organ toxicity

SARA 302 Extremely Hazardous Substances (40 CFR 355)

None

15.2. International regulations

CANADA


No additional information available

EU-Regulations

Classification according to Regulation (EC) No. 1272/2008 [CLP]

No additional information available

15.3. US State regulations

California Proposition 65:  **WARNING:** This product can expose you to crystalline silica (airborne particles of respirable size), which is known to the State of California to cause cancer. For more information, go to www.p65warnings.ca.gov.

SECTION 16: Other information

Other information : None.

Full text of H-phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Carc. 1A	Carcinogenicity Category 1A
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2B	Serious eye damage/eye irritation Category 2B
Skin Corr. 1A	Skin corrosion/irritation Category 1A
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization Category 1
Skin Sens. 1B	Skin sensitization Category 1B
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H320	Causes eye irritation
H335	May cause respiratory irritation
H350	May cause cancer

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