

Safety Data Sheet



SDS – Ready Mix Concrete, Freshly Mixed Liquid Unhardened Concrete

1. Identification

Product Identifier: Ready Mix Concrete, Freshly Mixed Liquid Unhardened Concrete

Manufacturer/Importer/Supplier/Distributor Information:

Company: Ideal Ready Mix Company, Inc.
Address: PO Box 416; West Burlington, IA 52655
Telephone: 319-754-4747
Emergency Phone Number: 319-754-4747

2. Hazards Identification

GHS Classification: Acute Toxicity Oral – Category 4; Acute Toxicity Dermal – Category 4
Acute Toxicity Inhalation – Category 3; Skin Corrosion/Irritation – Category 1B
Eye Damage – Category 1; Respiratory Sensitization – Category 1
Skin Sensitization – Category 1; Carcinogenicity – Category 1A
Specific Target Organ Toxicity Repeat Exposure – Category 1

GHS Label Elements:



Signal Word: **Danger**

Hazard Statement: Harmful if swallowed. Harmful in contact with skin. Toxic if inhaled.
Causes severe skin burns and eye damage. Causes serious eye damage.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction. May cause cancer.
Causes damage to organs through prolonged/repeated exposure (lungs).

Precautionary Statement:

Prevention: Wash thoroughly after handling. Do not eat, drink or smoke when using product.
Wear protective gloves/protective clothing/eye protection/face protection.
Contaminated work clothing must not be allowed out of the workplace.
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust, fume, gas, mist, vapors, or spray. Use only outdoors or in a well-ventilated area. In case of inadequate ventilation wear respiratory protection.

Response: If swallowed: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center/doctor. If on skin or hair: Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a poison center or doctor. Wash contaminated clothing before reuse. If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or doctor/physician. 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/doctor.

Storage: Store in a well-ventilated place in an appropriate container or containment

Disposal: Dispose of contents in accordance with local/state/ government regulations.

3. Composition/Information on Ingredients

CAS #	Component	Percent
Not Available	Aggregates	36-92
65997-15-1	Cement, portland, chemicals	2-26
68131-74-8	Ashes, residues	0-25
7732-18-5	Water	6-13
14808-60-7	Quartz	5-13

Component Information/Information on Non-Hazardous Components

General Product Information: Trace Elements: Ready-Mix concrete is made from materials mined from the earth. Trace amounts of naturally occurring elements might be detected during chemical analysis of these materials.

4. First-Aid Measures

Inhalation: Remove to fresh air. Seek medical help if coughing and other symptoms do not subside. (Inhalation of gross amounts of the dry ingredients in Ready-Mix concrete requires immediate medical attention.)

Skin Contact: Wash skin with cool water and pH-neutral soap or a mild detergent intended for use on skin. Seek medical treatment in all cases of prolonged exposure wet concrete, liquids from wet concrete products, or prolonged wet skin exposure to the dry ingredients in Ready-Mix concrete.

Eye Contact: Immediately flush eyes thoroughly with water. Continue flushing eye for at least 15 minutes, including under lids, to remove all particles. Call physician immediately.

Ingestion: Do not induce vomiting. If conscious, have the victim drink plenty of water and call a physician immediately.

5. Fire-fighting Measures

General Fire Hazards: See Section 9 for Flammability Properties. Non-Combustible.

Hazardous Combustion Products: None.

Suitable Extinguishing Media: Use appropriate extinguishing media for surrounding fire.

Unsuitable Extinguishing Media: None.

Fire-Fighting Equipment and Instructions: Firefighters should wear fully protective gear.

6. Accidental Release Measures

Recover & Neutralization: Stop the flow of material, if this is without risk.

Materials & Methods for clean-up: Collect dry material using a scoop. Avoid actions that cause dust to become airborne. Avoid inhalation of dust and contact with skin. Scrape up wet material and place in an appropriate container. Allow the material to harden before disposal.

Emergency Measures: Isolate area. Keep unnecessary personnel away.

Personal Precautions and Protective Equipment:

Wear appropriate personal protective equipment as described in Section 8.

Environmental Precautions:

Do not attempt to wash wet concrete down sewers or storm drains.

Prevention of Secondary Hazards: None.

7. Handling and Storage

Handling and Storage:

Avoid prolonged or repeated breathing of dust. Avoid contact with eyes and skin. Promptly remove dusty clothing or clothing which is wet with concrete and launder before reuse. Wash thoroughly after exposure to dust or wet concrete mixtures.

Storage Procedures:

Normal temperatures and pressures do not affect the material.

Incompatibilities:

Wet Ready-Mix concrete is alkaline. As such it is incompatible with acids, ammonium salts and aluminum metal.

8. Exposure Controls/Personal Protection

Component Exposure Limits:

Cement, Portland, Chemicals (65997-15-1)

ACGIH: 1 mg/m³ TWA (particulate matter containing no asbestos and <1% crystalline silica, respirable fraction)

OSHA: 15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction)

NIOSH: 10 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable dust)

Quartz (14808-60-7)

ACGIH: 0.025 mg/m³ TWA (respirable fraction)

NIOSH: 0.05 mg/m³ TWA (respirable dust)

Engineering Measures

Avoid actions that cause dust to become airborne. Use local exhaust or general dilution ventilation to control exposure within applicable limits.

Eyes Protection:

When engaged in activities where wet concrete or its dry ingredients could contact the eye, wear safety glasses with side shields or goggles. In extremely dusty environments and unpredictable environments, wear unvented or indirectly vented goggles to avoid eye irritation or injury. Contact lenses should not be worn when working with wet concrete or its dry ingredients.

Skin and Body Protection:

Where prolonged exposure to unhardened concrete products might occur, wear impervious clothing to eliminate skin contact. Where required, wear boots that are impervious to water to eliminate foot and ankle exposure. If clothing becomes saturated with wet concrete, it should be removed and replaced with clean dry clothing.

Hand Protection:

Where prolonged exposure to unhardened concrete products might occur, wear impervious gloves to eliminate skin contact. Do not rely on barrier creams; barrier creams should not be used in place of gloves. Periodically wash areas contacted by wet cement or its dry ingredients with a pH neutral soap and water. Wash again at the end of the work. If irritation occurs, immediately wash the affected area and seek treatment.

Respiratory Protection:

Use local or general ventilation to control exposures below applicable exposure limits. NIOSH or MSHA approved particulate filter respirators should be used in the context of respiratory protection program meeting the requirements of the OSHA respiratory protection standard [29 CFR 1910.134] to control exposures when ventilation or other controls are inadequate or discomfort or irritation is experienced. Respirator and/or filter cartridge selection should be based on American National Standards Institute (ANSI) Standards Z88.2 Practices for Respiratory Protection.

9. Physical and Chemical Properties

Appearance	Gray granular mixture
Physical State:	Liquid, semi-solid
Form:	Solid, particles.
Color:	White granular
Odor:	None.
pH:	12-13 (in water)
Melting Point:	Not applicable.
Specific Gravity:	1.70-3.00
VOC:	Not Determined.
Boiling Point:	Not applicable.
Flash Point:	None.
Flash Point Method:	None.
Lower Flammability Limit (LFL):	None.
Upper Flammability Limit (UFL):	None.
Burning Rate:	None
Evaporation Rate:	Not applicable.
Upper & Lower Flammability:	Not applicable
Vapor Pressure:	Not applicable.
Vapor Density:	Not applicable.
Solubility (H2O):	Slightly soluble.
Octanol/H2O Coeff.:	Not Determined
Auto Ignition Temperature:	Not combustible
Viscosity:	Not applicable.

10. Stability and Reactivity

Chemical Stability:	This is a stable material.
Hazardous Reaction Potential:	Will not occur.
Conditions to Avoid:	Unintentional contact with water.
Incompatible Products:	Wet Ready-Mix concrete is alkaline. As such it is incompatible with acids, ammonium salts, and aluminum metal.
Hazardous Decomposition:	Will not spontaneously occur. Adding water results in hydration and produces (caustic) calcium hydroxide.
Possibility of Hazardous Reactions:	No dangerous reaction known under conditions of normal use.

11. Toxicological Information

Acute Toxicity

Component Analysis – LD50/LC50

Ashes, residues (68131-74-8)
Oral LD50 Rat > 2000 mg/kg

Water (7732-18-5)
Oral LD50 Rat >90 mL/kg

Quartz (14808-60-7)
Oral LD50 Rat 500 mg/kg

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. 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 Ready-Mix concrete may cause drying of the skin with consequent mild irritation or more significant effects attributable to aggravation of other conditions. Exposure to wet concrete 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.

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

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

Inhalation: The ingredients in Ready-Mix concrete contain crystalline silica. Exposure to these ingredients in excess of the applicable TLV or PEL (see Section 2) may cause or aggravate other lung conditions. Exposure to the dry ingredients in Ready-Mix concrete may cause irritation to the moist mucous membranes of the nose, throat, and upper respiratory system.

Respiratory & Skin Sensitization: May cause allergy or asthma symptoms or breathing difficulties if inhaled. Some individuals may exhibit an allergic response upon exposure to wet concrete. The response may appear in a variety of forms ranging from a mild rash to severe skin ulcers. Persons already sensitized may react to their first contact with the product. Other persons may first experience this effect after years of contact with wet unhardened concrete products.

Generative Cell Mutagenicity: This product is not reported to have any mutagenic effects.

Carcinogenicity

A. General Product Information: 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).

B. Component Carcinogenicity:

Cement, Portland, chemicals (65997-15-1)
ACGIH: A4 - Not Classifiable as a Human Carcinogen

Quartz (14808-60-7)
ACGIH: A2 - Suspected Human Carcinogen
NIOSH: potential occupational carcinogen
NTP: Known Human Carcinogen (respirable size) (Select Carcinogen)
IARC: Monograph 100C [2012] (listed under Crystalline silica inhaled in the form of quartz or cristobalite from occupational sources); Monograph 68 [1997] (Group 1 (carcinogenic to humans))

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

**Specified Target Organ Toxicity
Single Exposure:** This product is not reported to have any single exposure specific target organ toxicity effects.

**Specified Target Organ Toxicity
Repeated Exposure:** Causes damage to organs through prolonged or repeated exposure (lungs).

Aspiration Respiratory Hazard: This product is not reported to have any aspiration hazards.

12. Ecological Information

Ecotoxicity

A. General Product Information: This product is not reported to have any Ecotoxicity effects.

B. Component Analysis – Ecotoxicity – Aquatic Toxicity

Ashes, residues (68131-74-8)

Test & Species

24 Hr EC50 Daphnia magna

Conditions

140 - 2000 mg/L

Persistence/Degradability

No information available for the product.

Bioaccumulation

No information available for the product.

Mobility in Soil

No information available for the product.

13. Disposal Considerations

Waste Disposal Instructions:

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

Disposal of Contaminated Containers or Packaging:

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

14. Transport Information

DOT Information - Shipping Name: Not regulated as dangerous goods.

15. Regulatory Information

US Federal Regulations:

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Component Analysis

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

State Regulations

Component Analysis – State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
Cement, Portland, chemicals	65997-15-1	No	Yes	Yes	Yes	Yes	No
Quartz	14808-60-7	No	Yes	Yes	Yes	Yes	No

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm.

Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Quartz	14808-60-7	1 %

**Additional Regulatory Information
Component Analysis - Inventory**

Component	CAS #	TSCA	CAN	EEC
Cement, Portland, chemicals	65997-15-1	Yes	DSL	EINECS
Ashes, residues	68131-74-8	Yes	DSL	EINECS
Water	7732-18-5	Yes	DSL	EINECS
Quartz	14808-60-7	Yes	DSL	EINECS

16. Other Information, Including Date of Preparation or Last Revision

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Revision Date: 02/10/2015
Version Date: 02/10/2015
Version: 2.0
Prepared By: Safety Coordinator; Ideal Ready Mix Company, Inc.
Other Information: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.122

Hazardous Material Information System (HMIS):	Health	1
	Flammability	0
	Physical Hazard	0
	Personal Protection	B

NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme

Personal Protective Equipment: Safety glasses, long sleeve shirt/paints, boots, gloves, and dust mask.

Disclaimer:

This SDS provides information on various types of ready mix concrete, freshly mixed liquid unhardened concrete. The information provided herein is believed by Ideal Ready Mix Company, Inc. to be accurate at the time of preparation or prepared from sources believed to be reliable. Health and safety precautions in this data sheet may not be adequate for all individuals or situations. Users have the responsibility to comply with all laws and procedures applicable to the safe handling and use of the products, to determine the suitability of the product for its intended use, and to understand possible hazards associated with using ready mix concrete, freshly mixed liquid unhardened concrete.

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