Safety Data Sheet

Ready Mix Concrete, Freshly Mixed Unhardened Concrete

Section 1: Product and Company Identification

Product: Ready Mix Concrete
Synonyms: Ready Mix Concrete, Portland Cement Concrete, Concrete, Pervious Concrete, Self-Consolidating Concrete, Flowable Fill
Product Use: Concrete is widely used as a structural component in construction.
Manufacturer: Dolese Bros. Co.
20 N.W. 13th
Oklahoma City, OK 73103
Phone: 405-235-2311
www.dolese.com

Section 2: Hazards Identification

GHS LABEL ELEMENTS
Symbol(s)

Signal Word

Danger

Hazard Statements

Harmful if swallowed.
Harmful in contact with skin.
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.

Precautionary Statements

Prevention

Wash thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dust.

Response

If swallowed: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center/doctor.
If on skin (or hair): Rinse skin with water/shower. Wash contaminated clothing before reuse.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if worn. Continue rinsing. If irritation persists, seek medical attention.

Disposal

Dispose in accordance with local/regional/international regulations.

Section 3: Composition/Information on Ingredients

Component	Percent
Aggregates	36-92
Cement, portland, chemicals	2-26
Ashes, residues	0-25
Water	6-13
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.

Section 4: First Aid Measures

First Aid: Eyes

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

First Aid: Skin

Wash skin with cool water and pH-neutral soap or a mild detergent intended for use on skin. Seek medical treatment if irritation is caused by prolonged exposure to wet concrete, liquids from wet concrete products, or prolonged wet skin exposure to the dry ingredients in Ready-Mix concrete.

First Aid: Ingestion

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

First Aid: 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.)

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

Firefighters should wear full protective gear.

Section 6: Accidental Release Measures

Recovery and Neutralization

Stop the flow of material, if this is without risk.

Materials and 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

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

Section 7: Handling and Storage

Handling Procedures

Avoid contact with eyes and skin. Promptly remove clothing which is wet with concrete and launder before reuse. Wash thoroughly after exposure to wet concrete mixtures.

Incompatibilities

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

Section 8: Exposure Controls/Personal Protection

Engineering Measures

Use local exhaust or general dilution ventilation to control exposure within applicable limits.

Personal Protective Equipment: Respiratory

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. Use appropriate respirator/filter cartridge selection.

Personal Protective Equipment: Hands

Where prolonged exposure to unhardened concrete products might occur, wear impervious gloves to eliminate skin contact. 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 persists, immediately wash the affected area and seek treatment.

Personal Protective Equipment: Eyes

When engaged in activities where wet concrete or its dry ingredients could contact the eye, wear safety glasses with side shields or goggles.

Personal Protective Equipment: Skin and Body

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.

Section 9: Physical and Chemical Properties

Appearance:	Gray granular mixture.	**Odor:**	None
Physical State:	Liquid, semi-solid	**pH:**	12-13 (in water)
Vapor Pressure:	Not Applicable	**Vapor Density:**	Not Applicable
Boiling Point:	Not Applicable	**Melting Point:**	Not Applicable
Solubility (H2O):	Slightly soluble	**Specific Gravity:**	1.70-3.00
Evaporation Rate:	Not Applicable	**VOC:**	Not Determined
Ignition:	Non-Flammable	**Flash Point:**	None

Section 10: Chemical Stability and Reactivity Information

Chemical Stability

This is a stable material.

Hazardous Reaction Potential

Will not occur.

Incompatible Products

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

Hazardous Decomposition Products

Will not spontaneously occur.

Section 11: Toxicological Information

Acute Toxicity

Wet concrete is not known to be toxic. Toxicity related to major components of concrete: cement, fly ash, and silica sand are negated in wet concrete form. The matrix precludes the inhalation of these constituents which could normally be of an occupational safety concern. The admixture and air entraining agents are sulfonate solutions which are not considered toxic.

Potential Health Effects: Skin Corrosion Property/Stimulativeness

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.

Potential Health Effects: Eye Critical Damage/ Stimulativeness

Exposure to airborne dust during the sawing of hardened concrete or handling/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. 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 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

The ingredients in Ready-Mix concrete 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 Ready-Mix concrete may cause irritation to the moist mucous membranes of the nose, throat, and upper respiratory system.

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

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.

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.

Specified Target Organ General Toxicity: Single Exposure

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

Specified Target Organ General Toxicity: Repeated Exposure

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

Aspiration Respiratory Organs Hazard

This product is not reported to have any aspiration hazards.

Section 12: Ecological Information

Seek information from appropriate regulatory agencies.

Section 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.

Section 14: Transportation Information

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

Section 15: Regulatory Information

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.

Seek information from appropriate regulatory agencies.

Section 16: Other Information

Abbreviations:

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

NFPA/HMIS: Health-1, Flammability-0, Physical Hazard/Reactivity-0
NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme
Protective Equipment: Safety glasses, gloves, impervious clothing, boots

Dolese Bros. Co. (DBC) believes the information contained herein is accurate; however, DBC makes no guarantees with respect to such accuracy and assumes no liability in connection with the use of the information contained herein which is not intended to be and should not be construed as legal advice or as insuring compliance with any federal, state or local laws or regulations. Any party using this product should review all such laws, rules, or regulations prior to use, including but not limited to the United States and Local State regulations.

NO WARRANTY IS MADE, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OTHERWISE.