

Ready Mixed Concrete (Dry Mix)

Safety Data Sheet

Revision Date: 6/1/2015

Date of Issue: 6/1/2015

Supersedes Date: 10/16/2000

Version 1.0



SECTION 1: IDENTIFICATION

1.1 Product Identifier

Product Name: Ready-Mixed Concrete (dry mix)

1.2 Intended User of the Product

Building Material

1.3 Name, Address, and Telephone Number of the Responsible Party

Company

BORAL CONSTRUCTION MATERIALS

4395 Washington Street

Denver, CO 80216

United States

(303) 292-1771

www.boralcolorado.com

1.4 Emergency Telephone Number

(303) 292-1771

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the Substance or Mixture

Classification (GHS-US)

Skin Corrosion 1A (H314)

Eye Damage 1 (H318)

Skin Sensitization 1 (H317)

Carcinogenicity 1A (H350)

Respiratory Harm Single Exposure 2 (H332)

Respiratory Harm Repeated Exposure 1 (H372)

2.2 Label Elements

GHS-US Labeling Hazard

Pictograms (GHS-US)



Signal Word (GHS-US):

- Danger

Hazard Statements

(GHS-US):

- Causes severe skin burns and eye damage. (H314)
- May cause an allergic skin reaction. (H317)
- Causes serious eye damage. (H318)
- May cause cancer. (H350)
- Causes respiratory harm through prolonged or repeated exposure. (H372)
- Harmful if inhaled. (H332)

Precautionary

Statements (GHS-US):

- Obtain special instructions before use. (P201)
- Do not handle until all safety precautions have been read and understood. (P202)
- Do not breathe dust, mist, or spray. (P260)
- Wash hands, forearms, and other exposed areas thoroughly after handling. (P264)
- Do not eat, drink, or smoke when using this product. (P270)
- Use only outdoors or in a well-ventilated area. (P271)
- Contaminated work clothing must not be allowed out of the workplace. (P272)
- Wear protective gloves, protective clothing, and eye protection. (P280)
- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. (P301) (P330) (P331)
- IF ON SKIN (OR HAIR): Remove all contaminated clothing immediately. Rinse skin with water/shower. (P303) (P353) (P361)
- IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing. (P304) (P340)

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- IF IN EYES: Rinse cautiously with water for at least 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing until pain or irritation subsides. (P305) (P338) (P351)
- If symptoms persist: Get medical advice/attention. (P308) (P313)
- Remove contaminated clothing and wash before re-use. (P362) (P364)
- Dispose of contents/container in accordance with local, regional, national, provincial, territorial, and international regulations. (P501)

2.3 Other Hazards

Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. Wet cement on unprotected skin, whether direct or through saturated clothing—can cause severe caustic burns. Repeat inhalation exposure may cause obstructive pulmonary disease, chronic bronchitis, silicosis, and cancer.

2.4 Unknown Acute Toxicity (GHS-US)

No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Description of Product

Dry cement mix.

3.2 Mixture Ingredients and Hazard Classification

Ingredient	Product Identifier (CAS No.)	% (w/w)	Classification (GHS-US)
Portland cement	65997-15-1	10 – 30	<ul style="list-style-type: none">• Skin Corrosion 1, H314• Eye Damage 1, H318• Skin Sensitization 1B, H317• Respiratory STOT SE 3, H332• Respiratory STOT RE 1, H372
Gravel	None	< 60	<ul style="list-style-type: none">• Not classified
Limestone	1317-65-3	< 65	<ul style="list-style-type: none">• Not classified
Quartz	14808-60-7	< 10	<ul style="list-style-type: none">• Carc. 1A, H350• Respiratory STOT SE 3, H332• Respiratory STOT RE 1, H372
Fly Ash	6831-74-8	< 4	<ul style="list-style-type: none">• Eye Irritation 2B, H320• Skin Irritation 2, H315• Respiratory STOT SE 2, H332

SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. Any person who is experiencing symptoms of injury or illness should be moved to a comfortable area with fresh air, and the label or SDS of this product reviewed. If feeling unwell, seek medical advice.

Inhalation: Move person to fresh air. Provide drinking water, if conscious, to flush mouth and irrigate upper respiratory tract. Seek medical attention if burns, pain, coughing or other symptoms do not subside.

Eye Contact: If the exposed person experiences burning or pain of the eyes due to dust or wet concrete exposure, careful flushing with clean water should continue for at least 15 minutes. If contact lenses are present, they should be removed after flushing. Continue flushing. Obtain medical attention immediately.

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Skin: Immediately flush skin with plenty of water until irritation or pain subsides. If burns or persistent irritation, obtain medical assistance. Remove contaminated clothing. Wash contaminated clothing before re-use.

Ingestion: Do NOT induce vomiting. Rinse mouth. Call a poison center or obtain medical attention.

4.2 Most Important Symptoms and Effects—Both Acute and Delayed

General: The most important symptoms and effects from exposure to this product is contact with dust and wet concrete mix, which can cause severe eye and skin burns. Breathing dust can cause severe respiratory irritation and respiratory system chronic illness if significant exposures occur repeatedly.

Inhalation: The immediate acute response to dust inhalation is severe respiratory system irritation. Upon repeated high levels of dust exposure, crystalline silica content of the dust may cause delayed or chronic respiratory illnesses, including silicosis and cancer.

Eye Contact: Exposures of the eyes to dust or wet concrete mix may result in serious burns, irritation, pain, redness, and blurred vision, which must be treated immediately with first aid (Section 4) followed by medical attention.

Skin Contact: Skin contact can cause severe caustic burns, irritation, and allergic response.

4.3 Indication of Immediate Medical Attention and Special Treatment

Any time symptoms of eye or respiratory irritation occur, immediate first aid should be provided as described in Section 4, and medical attention should be obtained.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire. Finished product is not combustible.

5.2 Special Hazards Arising from the Substance or Mixture

Fire Hazard: Not combustible.

Explosion Hazard: Product is not explosive.

Reactivity: Hazardous reactions are not expected to occur under normal conditions.

5.3 Advice for Firefighters

Not applicable.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment, and Emergency Procedures

General Measures: Do not breathe dust. Do not get dust or wet concrete mix in eyes, on skin, or on clothing.

6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

6.1.2. For Emergency Personnel

Protective Equipment: Equip clean-up crew with proper protection.

Emergency Procedures: Ventilate area if dust is generated.

6.2 Environmental Precautions

Reuse product as appropriate to avoid disposal.

6.3 Methods and Material for Containment and Clean-Up

Containment: Contain and collect as any solid. Avoid actions that cause dust to become airborne. Do not breathe dust, and do not allow large quantities of dust or wet product to contact skin or eyes.

6.4 Reference to Other Sections

See Section 8. Exposure Controls and Personal Protection. For waste management information, refer to Section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for Safe Handling

Additional Hazards when Processed: Dust will be generated when pouring or mixing this product. Use practices to control dust, like pouring instead of dumping, not shaking empty bags, and using a water mist. Personal Protective Equipment (PPE) described in Section 8 should be used.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking, and again when leaving work.

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7.2 Conditions for Safe Storage, Including any Incompatibilities

Not applicable.

7.3 Specific End-Use(s)

Not applicable.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Exposure Limits

The following exposure limits are based on a time-weighted full-shift exposure, unless otherwise noted.

Ingredient	OSHA PEL ⁽¹⁾	ACGIH-TLV ⁽²⁾	Other ⁽³⁾⁽⁴⁾
Quartz	30 mg/m ³ ÷ % SiO ₂ + 2 (total dust); 10 mg/m ³ ÷ % SiO ₂ + 2 (respirable fraction)	0.025 mg/m ³ (respirable fraction)	NIOSH REL – 0.05 mg/m ³ (respirable fraction)
Portland cement	15 mg/m ³ (total dust); 5 mg/m ³ (respirable fraction)	1 mg/m ³ (respirable fraction containing no asbestos and < 1% crystalline silica)	NIOSH REL – 10 mg/m ³ (total dust); 5 mg/m ³ (respirable fraction)
Limestone	15 mg/m ³ (total dust); 5 mg/m ³ (respirable fraction)	10 mg/m ³ (total dust); 3 mg/m ³ (respirable fraction)	NIOSH REL – 10 mg/m ³ (total dust); 5 mg/m ³ (respirable fraction)
Fly Ash	15 mg/m ³ (total dust); 5 mg/m ³ (respirable fraction)	10 mg/m ³ (total dust); 3 mg/m ³ (respirable fraction)	
Gravel ⁽⁵⁾	30 mg/m ³ ÷ % SiO ₂ + 2 (total dust); 10 mg/m ³ ÷ % SiO ₂ + 2 (respirable fraction)	0.025 mg/m ³ (respirable fraction) [quartz]	NIOSH REL – 0.05 mg/m ³ (respirable fraction) ⁽⁴⁾

Notes:

- (1) OSHA PEL (Permissible Exposure Level at 29 CFR 1910.1000)
- (2) ACGIH-TLV (American Conference of Governmental Industrial Hygienists-Threshold Limit Values 2015)
- (3) NIOSH REL (National Institute for Occupational Safety & Health Recommended Exposure Limit)
- (4) Canadian Provincial and other nation control parameters are listed on the Supplement
- (5) Natural sand and gravel includes particulates not otherwise classified (PNOC) and crystalline silica (quartz)

8.2 Exposure Controls

Appropriate Engineering Controls: Emergency eyewash equipment should be available in the immediate vicinity of any potential exposure. Use local exhaust or other suppression methods to maintain dust levels below exposure limits if product is used indoors. Follow safe work practices when pouring or mixing product.

Personal Protective Equipment: Protective goggles or safety glasses, gloves, and protective footwear. Wear respiratory protection if dust is present when pouring or mixing.



Hand Protection: Protective gloves as appropriate to prevent burns and other hand injuries.

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Eye and/or Face Protection: Approved safety glasses, goggles, and/or face-shield.

Skin and Body Protection: Appropriate work clothing and footwear should be worn. If direct contact with wet concrete is expected, wear waterproof boots.

Respiratory Protection: If exposure limits may be exceeded or irritation is experienced, approved respiratory protection should be worn.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties

Physical State: Granular solid.

Appearance: Gray flowable material.

Odor: Essentially odorless.

Odor Threshold: Not available.

pH: > 11 when wet.

Evaporation Rate: Not available.

Melting Point: Not available.

Freezing Point: Not available.

Boiling Point: Not available.

Flashpoint: Not available.

Auto-ignition Temperature: Not available.

Decomposition Temperature: Not available.

Flammability (solid, gas): Not available.

Lower Flammable Limit: Not available.

Upper Flammable Limit: Not available.

Vapor Pressure: Not available.

Relative Vapor Density at 20° C: Not available.

Relative Density: Not available.

Specific Gravity: 2.6

Solubility: Slightly soluble in water.

Partition Coefficient—N-Octanol/Water: Not available.

Viscosity: Not available.

Explosion Data—Sensitivity to Mechanical Impact: Not expected to present an explosion hazard due to mechanical impact.

Explosion Data—Sensitivity to Static Discharge: Not expected to present an explosion hazard due to static discharge.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Hazardous reactions are not expected to occur under normal conditions.

10.2 Chemical Stability

Stable.

10.3 Possibility of Hazardous Reactions

Not applicable.

10.4 Conditions to Avoid

Not applicable.

10.5 Incompatible Materials

Not applicable.

10.6 Hazardous Decomposition Products

Not applicable.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Likely Routes of Exposure

Skin Contact: Product is corrosive and may burn or irritate unprotected skin.

Eye Contact: Product is corrosive and may burn or severely irritate unprotected eyes and cause injury.

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Inhalation: Respirable dust may be generated that, when inhaled, can cause respiratory system irritation. Prolonged or repeated inhalation exposure may cause chronic illness.

Ingestion: Not expected to be an exposure route of concern

11.2 Symptoms Related to Physical, Chemical, and Toxicological Characteristics

Immediate Effects: Serious harm to skin, eyes, and respiratory tract due to dust inhalation or exposure of eyes and skin to wet product.

Delayed and Chronic Effects: Inhalation of dust on a prolonged or repeated basis may result in chronic lung disease or silicosis, and may also result in lung cancer, in particular among tobacco smokers.

11.3 Numerical Measures of Toxicity

The acute and chronic effects of exposure to this product's dust have not been quantified.

11.4 Carcinogenicity

The ingredient quartz, also known as crystalline silica, has been determined to be carcinogenic by the International Agency for Research on Cancer (IARC) and the National Toxicology Program (NTP).

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

No additional information available.

12.2 Persistence and Degradability

Not available.

12.3 Bioaccumulative Potential

Not available.

12.4 Mobility in Soil

Not available.

12.5 Other Adverse Effects

Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Waste Disposal Recommendations: Scrap material should be re-used or recycled. Dry mix or cured concrete waste is not a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) (40 CFR 261), but should be prevented from entering sewer systems or surface waters. Dispose of waste material in accordance with all local, regional, national, provincial, territorial, and international regulations.

SECTION 14: TRANSPORT INFORMATION

14.1 DOT (U.S.)

Not regulated as a hazardous material for transport.

14.2 IMDG (Maritime Code)

Not regulated as a dangerous good for transport by sea.

14.3 IATA

Not regulated as a dangerous for transport by air.

14.4 TDG (Canada)

Not regulated as a dangerous good for transport.

SECTION 15: REGULATORY INFORMATION

15.1 U.S. Federal Regulations

SARA Section 311/312 Hazard Classes (40 CFR 370)

Immediate (acute) health hazard

Delayed (chronic) health hazard

SARA Section 313 Emission Reporting

This product may contain constituents listed under SARA (Title III) Section 313, but not in amounts requiring supplier notification under 40 CFR Part 372.

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TSCA Inventory

All constituents are included on the Toxic Substances Control Act Chemical Inventory (40 CFR 720), and exempt from inventory update reporting (40 CFR 710).

15.2 U.S. State Regulations

State Right-to-Know Laws

This product is a hazardous substance subject to inventory reporting and other requirements of the Massachusetts, New Jersey, and Pennsylvania right-to-know laws.

California Proposition 65—Warning Required

WARNING: This product contains crystalline silica and other chemicals known to the State of California to cause cancer, birth defects, and other reproductive harm.

15.3 Canadian Regulations

DSL

All ingredients are listed or exempt from inclusion on the Canadian Domestic Substances List (DSL).

WHMIS: Portland Cement and Quartz (Crystalline Silica)

Class D, Division 2, Subdivision A – Very toxic material causing other toxic effects

Class D, Division 2, Subdivision B – Toxic material causing other toxic effects

Class E – Corrosive material



15.4 Other: HMIS and NFPA

HMIS:

READY MIXED CONCRETE (DRY MIX)		
HEALTH	*	3
FLAMMABILITY		0
PHYSICAL HAZARD		0
PERSONAL PROTECTION		

NFPA:

READY MIXED CONCRETE (DRY MIX)			
NFPA Health Hazard 3 - Short exposure can cause serious temporary or residual injury even though prompt medical attention was given.			
NFPA Fire Hazard 0 - Materials that will not burn.			
NFPA Reactivity 0 - Normally stable, even under fire exposure conditions, and not reactive with water.			
2	0	0	

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Party Responsible for Preparation of this Document

BORAL CONSTRUCTION MATERIALS

(303) 292-1771

Limitations

The information and recommendations set forth herein are based on data we have in our possession, and we have reason to believe is accurate. It is, however, the user's responsibility to determine the safety, toxicity, or suitability for his/her own use of the herein described product. Because the actions by others is beyond our control, Boral Construction Materials makes no warranty expressed or implied regarding accuracy of the data or the results to be obtained from the use thereof.

NA GHS SDS