



# National Ready Mixed Concrete Co.

## SAFETY DATA SHEET

Ready Mixed Concrete, Freshly Mixed Unhardened Concrete

### Section 1. Identification

**GHS product identifier** : Plastic Ready Mixed Concrete  
**Other means of identification** : Concrete, Concrete Ready Mix, Portland Cement Concrete, Ready Mix Grout, Permeable Concrete, Shotcrete, Gunite, Colored Concrete, Flowable Fill, Roller-Compacted Concrete, Fiber Reinforced Concrete

**Supplier's details** : **National Ready Mixed Concrete Company Inc.**  
15821 Ventura Blvd. Suite 475  
Encino, CA 91436-4778  
818-728-5200

### Section 2. Hazards Identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 191 0.1200).  
SKIN CORROSION/IRRITATION - Category 1  
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1  
SKIN SENSITIZATION - Category 1  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Respiratory tract irritation] - Category 3

#### GHS label elements

**Hazard pictograms** :



**Signal word** :

Danger

**Hazard statements** :

Causes severe skin burns and eye damage.  
May cause an allergic skin reaction.  
May cause respiratory irritation.

#### Precautionary statements

**Prevention** :

Wear protective gloves. Wear eye or face protection. Avoid breathing dust. Wash hands thoroughly after handling. May cause eye and skin burns. See Section 4 for additional details. May present risk of engulfment. See Section 7 for additional details. Overexposure to wet concrete can cause severe skin damage in the form of chemical burns, including third degree burns. The same severe injury can occur if wet or moist skin is exposed to dry Ready Mixed Concrete dust. Clothing wet with moisture from concrete can transmit the caustic effects to the skin, causing chemical burns. Ready Mixed Concrete may cause skin burns with little warning; discomfort or pain cannot be relied upon to alert a person to a serious injury. You may not feel pain or the severity of the burn until hours after the exposure.

## Section 2. Hazards Identification

**MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED BY EXPOSURE:** Contact with wet concrete may aggravate existing skin conditions. Sensitivity to hexavalent chromium can be aggravated by exposure.

**Response** : IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Prolonged and repeated inhalation of respirable crystalline silica-containing dust in excess of appropriate exposure limits has caused silicosis, fibrosis or scar tissue formations in the lungs. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN: Wash with plenty of pH neutral soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: get medical attention. Ready Mixed Concrete may contain trace amounts of hexavalent chromium. Hexavalent chromium is associated with allergic skin reactions which may appear as contact dermatitis and skin ulcerations. Persons already sensitized may react to their first exposure to concrete. Other individuals may develop allergic dermatitis after repeated exposure to concrete. The symptoms of allergic reactions may include reddening of the skin, rash, and irritation. Symptoms of chronic exposure to wet concrete may include reddening, irritation, and eczematous rashes. Drying, thickening, and cracking of the skin and nails may also occur. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Exposure to dust may cause immediate or delayed irritation or inflammation. Eye contact by larger amount of dry power or splashes of wet Ready Mixed Concrete may cause effects ranging from moderate eye irritation to chemical burns or blindness. Immediately call a POISON CENTER or physician. IF INGESTED: Irritating to mouth, throat and stomach. Ingestion of large quantities may cause severe irritation and chemical burns of the mouth, throat, stomach and digestive tract. Do not ingest Ready Mixed Concrete. Get immediate medical attention.

**Storage** : Not applicable.

**Disposal** : Dispose of Ready Mixed Concrete in accordance with local, regional, and national regulations.

**Hazards not otherwise classified** : Not applicable.

## Section 3. Composition/Information on Ingredients

**Substance/mixture** : Mixture

**CAS number/other identifiers**

Ingredient name	%	CAS number
<b>The structure of Ready Mixed Concrete may contain the following in some concentration ranges:</b>		
Quartz	0 - 80	14808-60-7
Water	0 - 13	7732-18-5
Limestone	0 - 20	131 7-65-3
Cement, Portland	2 - 26	65997-15-1
Fly Ash	0 - 22	68131-74-8

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

Chemical admixtures may be present in ranges of less than 1%.

**Trace Elements:** Ready Mixed Concrete is made from materials mined from the earth. Trace amounts of naturally occurring elements might be detected during chemical analysis of these materials.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First Aid Measures

### Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Call physician immediately.
- Inhalation** : Seek medical help if coughing or other symptoms persist. Inhalation of large amounts of Ready Mixed Concrete requires immediate medical attention. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If the individual is not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.
- Skin contact** : Get medical attention immediately. Heavy exposure to Ready Mixed Concrete dust, wet concrete or associated water requires prompt attention. Quickly remove contaminated clothing, shoes, and leather goods such as watchbands and belts. Quickly wash or brush away Ready Mixed Concrete. Immediately wash thoroughly with gently flowing water and non-abrasive pH neutral soap. Seek medical attention for rashes, burns, irritation, dermatitis and prolonged unprotected exposures to wet concrete, concrete mixtures or liquids from wet concrete. Burns should be treated as caustic burns. Ready Mixed Concrete may cause skin burns with little warning. Discomfort or pain cannot be relied upon to alert a person to a serious injury. You may not feel pain or the severity of the burn until hours after the exposure. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING unless directed to do so by medical personnel. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop giving water if the exposed person feels sick as vomiting may be dangerous. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : May cause serious eye damage.
- Inhalation** : May cause respiratory irritation.
- Skin contact** : May cause pain, irritation, redness and or blisters.
- Ingestion** : May cause stomach pains

See toxicological information (Section 11)

## Section 5. Fire-Fighting Measures

### Extinguishing media

**Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media** : None known.

**Specific hazards arising from the chemical** : No specific fire or explosion hazard.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
Sulfur oxides  
metal oxide/oxides

**Special protective actions for fire-fighters** : No special protection is required.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment.

## Section 6. Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : Personnel involved with the handling of wet unhardened concrete should take steps to avoid contact with the eyes and skin, through the use of gloves and suitable clothing as described in Section 8. Silica-containing respirable dust particles may be generated by crushing, cutting, grinding, or drilling hardened concrete or concrete products. Follow protective controls defined in Section 8 when handling these products. When cutting, grinding, crushing or drilling hardened concrete, use local exhaust or general dilution ventilation or other suppression methods to maintain dust levels below exposure limits.

**For emergency responders:** For personal protective clothing requirements, please see Section 8.

**Environmental precautions:** Wet unhardened concrete should be recycled or allowed to harden and disposed. Do not wash concrete down sewage and drainage systems or into bodies of water (e.g. lakes, streams, wetlands, etc.).

### Methods and materials for containment and cleaning up

**Spills:** Place spilled material into a contained area and allow wet unhardened concrete to harden and dispose in a landfill as common solid waste. Follow applicable Federal, State, and local regulations for disposal. Uncontaminated ready mixed concrete is neither a listed nor a characteristic hazardous waste under designations by the USEPA or USDOT.

**USDOT Class:** Uncontaminated ready mixed concrete does not meet any hazardous material class definition found in Title 49 Code of Federal Regulations Part 173.

## Section 7. Handling and Storage

### Precautions for safe handling

#### Protective measures

: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure by obtaining and following special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe dust. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

#### Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

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

: A key to using the product safely requires the user to recognize that Ready Mixed Concrete reacts chemically with water to produce calcium hydroxide which can cause severe chemical burns. Every attempt should be made to avoid skin and eye contact with concrete. Do not get Ready Mixed Concrete inside boots, shoes or gloves. Do not allow wet, saturated clothing to remain against the skin. Promptly remove clothing and shoes that are dusty or wet with concrete mixtures. Launder/clean clothing and shoes before reuse.

## Section 8. Exposure Controls/Personal Protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Crystalline silica, quartz	<p><b>OSHA PEL Z3 (United States, 2/2013 3).</b> TWA: 10 mg/m<sup>3</sup> / (%SiO<sub>2</sub>+2) 8 hours. Form: Respirable TWA: 250 MPPCF / (%SiO<sub>2</sub>+5) 8 hours. Form: Respirable</p> <p><b>ACGIH TLV (United States, 6/2013).</b> TWA: 0.025 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction</p> <p><b>NIOSH REL (United States, 4/2013 3).</b> TWA: 0.05 mg/m<sup>3</sup> 10 hours. Form: respirable dust</p>
Cement, portland	<p><b>ACGIH TLV (United States, 6/2013).</b> TWA: 1 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction</p> <p><b>NIOSH REL (United States, 4/2013 3).</b> TWA: 5 mg/m<sup>3</sup> 10 hours. Form: Respirable fraction</p>
Limestone	<p>TWA: 10 mg/m<sup>3</sup> 10 hours. Form: Total</p> <p><b>OSHA PEL (United States, 2/2013).</b> TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction TWA: 15 mg/m<sup>3</sup> 8 hours. Form: Total dust</p> <p><b>NIOSH REL (United States, 4/2013 3).</b> TWA: 5 mg/m<sup>3</sup> 10 hours. Form: Respirable fraction fraction TWA: 10 mg/m<sup>3</sup> 10 hours. Form: Total</p> <p><b>OSHA PEL (United States, 2/2013).</b> TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction TWA: 15 mg/m<sup>3</sup> 8 hours. Form: Total dust</p>

Admixtures may be present in quantities of less than 1%.

## Section 8. Exposure Controls/Personal Protection

- Appropriate engineering controls** : Use only with adequate ventilation. If user operations generate dust, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.
- Individual protection measures**
- Hygiene measures** : Clean water should always be readily available for skin and (emergency) eye washing. Periodically wash areas contacted by Ready Mixed Concrete with a pH neutral soap and clean, uncontaminated water. If clothing becomes saturated with Ready Mixed Concrete, it should be removed and replaced with clean, dry clothing.
- Eye / face protection** : To prevent eye contact, wear safety glasses with side shields, safety goggles or face shields when handling dust or wet concrete. Wearing contact lenses when working with concrete is not recommended.
- Skin protection** : Use impervious, waterproof, abrasion and alkali-resistant gloves. Do not rely on barrier creams in place of impervious gloves. Do not get Ready Mixed Concrete inside gloves.
- Hand protection** : Use impervious, waterproof, abrasion and alkali-resistant boots and long-sleeved and long-legged clothing to protect the skin from contact with wet Ready Mixed Concrete. To reduce foot and ankle exposure, wear impervious boots that are high enough to prevent Ready Mixed Concrete from getting inside them. If finishing concrete, wear waterproof knee pads to protect knees. Do not get Ready Mixed Concrete inside boots, shoes, or gloves. Remove clothing and protective equipment that becomes saturated with concrete and immediately wash exposed areas of the body.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved. Footwear and other gear to protect the skin should be approved by a specialist before handling this product.
- Respiratory protection** : Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. 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.

## Section 9. Physical and Chemical Properties

### Appearance

- Physical state** : Solid. [Semi-fluid, Flowable, Granular Paste, Varying.]
- Color** : Gray, Varying.
- Odor** : Odorless.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.

## Section 9. Physical and Chemical Properties

<b>Boiling point</b>	: Not available.
<b>Flash point</b>	: Not flammable. Not combustible.
<b>Evaporation rate</b>	: Not applicable.
<b>Flammability (solid, gas)</b>	: Not applicable.
<b>Lower and upper explosive (flammable) limits</b>	: Not applicable.
<b>Vapor pressure</b>	: Not applicable.
<b>Vapor density</b>	: Not applicable.
<b>Relative density</b>	: Wet Concrete 1.9 to 2.4
<b>Solubility</b>	: Not soluble.
<b>Solubility in water</b>	: Not soluble.
<b>Partition coefficient: n octanol/water</b>	: Not applicable.
<b>Auto-ignition temperature</b>	: Not applicable.
<b>Decomposition temperature:</b>	Not available.
<b>Viscosity</b>	: Not applicable.

## Section 10. Stability and Reactivity

Reacts slowly with water forming hydrated compounds, releasing heat and producing a strong alkaline solution.

The product is stable.

Under normal conditions of storage and use, hazardous reactions will not occur.

No specific data.

Reactive or incompatible with the following materials: oxidizing materials, acids, aluminum and ammonium salt.

Ready Mixed Concrete is highly alkaline and will react with acids to produce a violent, heat-generating reaction. Toxic gases or vapors may be given off depending on the acid involved. Reacts with acids, aluminum metals and ammonium salts. Aluminum powder and other alkali and alkaline earth elements will react in wet mortar or concrete, liberating hydrogen gas. Limestone ignites on contact with fluorine and is incompatible with acids, alum, ammonium salts, and magnesium. Silica reacts violently with powerful oxidizing agents such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, and oxygen difluoride yielding possible fire and/or explosions. Silicates dissolve readily in hydrofluoric acid producing a corrosive gas - silicon tetrafluoride.

Hazardous decomposition products:

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological Information

**Information on toxicological effects**

**Acute toxicity**

There is no data available.

**Irritation/Corrosion**

There is no data available.

**Sensitization**

There is no data available.

**Carcinogenicity**

**Classification**

	OSHA	IARC	NTP	ACGIH	EPA	NIOSH
Quartz	-	1	Known to be a human carcinogen. -	A2	-	+
Cement, portland	-	-		A4	-	-

**Specific target organ toxicity (single exposure)**

Name	Category	Route of exposure	Target organs
Cement, portland	Category 3	Not applicable.	Respiratory tract irritation

**Specific target organ toxicity (repeated exposure)**

Name	Category	Route of exposure	Target organs
Quartz	Category 1	Not determined	kidneys, respiratory tract and testes

**Aspiration hazard**

There is no data available.

**Information on the likely routes of exposure** : Dermal contact. Eye contact. Inhalation. Ingestion.

**Potential acute health effects**

- Eye contact** : May cause serious eye damage.
- Inhalation** : May cause respiratory irritation.
- Skin contact** : May cause severe burns. May cause an allergic skin reaction.
- Ingestion** : May cause burns to mouth, throat and stomach.

## Section 11. Toxicological Information

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** : No known significant effects or critical hazards.

**Potential delayed effects** : No known significant effects or critical hazards.

#### Long term exposure

**Potential immediate effects** : No known significant effects or critical hazards.

**Potential delayed effects** : No known significant effects or critical hazards.

### Potential chronic health effects

**General** : Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

**Carcinogenicity** : No known significant effects or critical hazards.

**Mutagenicity** : No known significant effects or critical hazards.

**Teratogenicity** : No known significant effects or critical hazards.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

There is no data available.

## Section 12. Ecological Information

### Toxicity

There is no data available.

### Persistence and degradability

There is no data available.

### Bioaccumulative potential

There is no data available.

### Mobility in soil

**Soil/water partition coefficient ( $K_{oc}$ )** : There is no data available.

**Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal Considerations

### Disposal methods

- : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Untreated waste should not be released to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Landfill should only be considered when recycling is not feasible. This material must be disposed of in a safe manner. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff in waterways, drains and sewers.

## Section 14. Transport Information

	DOT Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	None.	None.	None.
Additional information	-	-	-

**AERG**: Not applicable.

**Special precautions for user** : **Transport within user's premises:** Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** : Not available.

## Section 15. Regulatory Information

**US Federal Regulations:** United States inventory (TSCA 8b): All components are listed or exempted.  
 Clean Water Act (CWA)  
 CERCLA: This product is not listed as a CERCLA substance

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) :Not listed  
 Clean Air Act Section 602 Class I Substances :Not Listed

**SARA 302/304**

**Composition/information on ingredients**

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
This product contains no Extremely Hazardous Substances.						

**SARA 304 RQ** : Not applicable.

**SARA 311/312**

**Classification** : Immediate (acute) health hazard  
 Delayed (chronic) health hazard

**Composition/information on ingredients**

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Quartz	0 - 80	No.	No.	No.	No.	Yes.
Nickel Compounds	< de minimis	No.	No.	No.	Yes.	Yes.
Lead (Organic & Inorganic)	< de minimis	No.	No.	No.	No.	Yes.
Mercury	< de minimis	No.	No.	No.	Yes.	Yes.

**SARA 313**

	Product name	CAS number	%
<b>Form R - Reporting requirements</b>	Lead (Organic or Inorganic)	-	< 0.1
	Nickel Compounds	-	< 0.1
	Mercury	-	< 0.1
<b>Supplier notification</b>	Alternatively, if any of the compounds are not present, state: This product does not contain any constituents listed under SARA Title III Section 313.		

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

**State regulations**

**Massachusetts** : The following components are listed: Crystalline silica, quartz; Limestone; Cement, portland

**New York** : None of the components are listed.

**New Jersey** : The following components are listed: Crystalline silica, quartz; Limestone; Cement, portland

**Pennsylvania** : The following components are listed: Crystalline silica, quartz; Limestone; Cement, portland

**California Prop. 65**

**WARNING:** This product contains less than 0.1% of a chemical known to the State of California to cause cancer.

## Section 15. Regulatory Information

Ingredient name	Cancer	Reproductive		Maximum acceptable dosage level
Quartz	Yes.	No.	No.	No.
Nickel	Yes.	No.	No.	No.
Lead	Yes.	Yes.	15 µg/day (ingestion)	Yes.

## Section 16. Other Information

### History

**Date of issue** : 05/04/2015

**Version** : 1

**Revised Section(s)** : Not applicable.

**Preparer** : **Russell H Morton**

### **Environmental / Safety**

### **Key to abbreviations**

: ATE = Acute Toxicity Estimate  
 BCF = Bioconcentration Factor  
 GHS = Globally Harmonized System of Classification and Labeling of Chemicals  
 IATA = International Air Transport Association  
 IBC = Intermediate Bulk Container  
 IMDG = International Maritime Dangerous Goods  
 Log Pow = logarithm of the octanol/water partition coefficient  
 MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
 UN = United Nations

### Notice to reader:

To the best of our knowledge, the information contained herein is accurate. However, neither National Ready Mixed Concrete Company, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

This Safety Data Sheet is intended as a sample. While it represents ingredients and values typical for Portland cement concrete, concrete and its constituent ingredients vary in composition. Information on specific aggregates, cementitious materials, water and admixtures should be provided by the supplier upon request.

The information contained in this Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

The information set forth herein is intended for use by persons having technical skill and at their own discretion and risk. Since conditions of use are outside the concrete/concrete products producer's control, the producer makes no warranties, expressed or implied, and assumes no liability in connection with any use of this information.