

# Ready-Mix Concrete

## Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)  
Issue date: 2023-03-03 Revision date: 2023-04-21 Version: 2.0

### SECTION 1: Identification

#### 1.1. Product identifier

Product form : Mixture  
Product name : Ready-Mix Concrete  
Other means of identification : Concrete, Portland Cement Concrete, Ready Mix Grout, Permeable Concrete, Shotcrete, Fiber Reinforced Concrete

#### 1.2. Recommended use and restrictions on use

Recommended uses and restrictions : Industrial uses in the construction of buildings and pavement.  
Restrictions on use : Product for industrial use only, Keep out of reach of children.

#### 1.3. Supplier

##### Manufacturer

Dutch Brothers Ready-Mix  
3777 Westminster Drive. London, ON 519-652-2229 (London)  
10 Elm Street, Tillsonburg, ON 519-842-8491 (Tillsonburg)

#### 1.4. Emergency telephone number

Emergency number : 1-613-996-6666 CANUTEC (Call Collect or \*666 Cellular) 24-hours  
Toll-free 1-888-CAN-UTEC (226-8832) or 613-992-462 (Canada and US only)  
Health & Safety Centre – 24 Hours – 1-877-202-0008  
Poison Control: 1-844-764-7669

### SECTION 2: Hazard identification

#### 2.1. Classification of the substance or mixture

##### Classification (GHS CA)

Skin Corrosion - Category 1	H314	Causes severe skin burns and eye damage.
Serious Eye Damage — Category 1	H318	Causes serious eye damage.
Skin Sensitizer — Category 1	H317	May cause an allergic skin reaction.
Carcinogenicity — Category 1A	H350	May cause cancer (Inhalation)
Specific Target Organ Toxicity — Single Exposure — Category 3	H335	May cause respiratory irritation.
Specific Target Organ Toxicity — Repeated Exposure — Category 1	H372	Causes damage to organs through prolonged or repeated exposure.(Inhalation)
Health Hazards Not Otherwise Classified — Category 1		Causes severe damage to the respiratory tract

#### 2.2. GHS Label elements, including precautionary statements

##### GHS-CA labelling

Hazard pictograms (GHS-CA) : 

Signal word (GHS CA) : Danger

Hazard statements (GHS-CA) : H314 - Causes severe skin burns and eye damage.  
H317 - May cause an allergic skin reaction.  
H335 - May cause respiratory irritation.  
H350 - May cause cancer.

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Precautionary statements (GHS-CA)

H372 - Causes damage to organs through prolonged or repeated exposure.  
Causes severe damage to the respiratory tract

: P201 - Obtain special instructions before use.  
P202 - Do not handle until all safety precautions have been read and understood.  
P260 - Do not breathe dust, fume, gas, mist, spray, vapours.  
P264 - Wash hands, forearms and face thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product  
P271 - Use only outdoors or in a well-ventilated area.  
P272 - Contaminated work clothing should not be allowed out of the workplace.  
P280 - Wear eye protection, face protection, protective clothing, protective gloves.  
P308+P313 - IF exposed or concerned: Get medical advice/attention.  
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting  
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water .  
P362+P364 - Take off contaminated clothing and wash it before reuse.  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
P363 - Wash contaminated clothing before reuse.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 - Immediately call a POISON CENTER or doctor.  
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P312 - Call a POISON CENTER or doctor if you feel unwell.

### 2.3. Other hazards

No additional information available

### 2.4. Unknown acute toxicity (GHS CA)

Not applicable

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%
Calcium oxide	Lime / Quicklime / CALCIUM OXIDE / Quicklime (CaO) / Calcium oxide (CaO) / Lime (calcium oxide)	CAS-No.: 1305-78-8	5 – 30
Cement, portland, chemicals	Portland cement / Silicate, portland cement / Cement Portland / Cement kiln dust / Cement (Portland)	CAS-No.: 65997-15-1	10 – 30

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Name	Chemical name / Synonyms	Product identifier	%
Slags, ferrous metal, blast furnace	Slags, ferrous metal, blast furnace (The fused substance formed by the action of a flux upon the gangue of the iron-bearing materials charged to a blast furnace and upon the oxidized impurities in the iron produced. Depending upon the particular blast furnace operation, the slag is composed primarily of sulfur and oxides of aluminum, calcium, magnesium, and silicon.) / Slags (ferrous metal) blast furnace	CAS-No.: 65996-69-2	10 – 30
Ashes, residues	Ashes (residues) / Ceramic microspheres / Coal ash by-product / Furnace residues	CAS-No.: 68131-74-8	10 – 30
Quartz	Quartz (SiO <sub>2</sub> ) / Silica, crystalline, quartz / Crystalline silica, quartz / .alpha.-Quartz / Silica, crystalline, .alpha.-quartz / QUARTZ / Crystalline silica in the form of quartz / Quartz, silica / Quartz (respirable fraction) / Silica dust / Silica, crystalline-.alpha.quartz / Silica, .alpha.-quartz / Silicon dioxide / Silica, quartz / Silica, crystalline / Quartz (crystalline silica) / Silica dust, crystalline / QUARTZ POWDER / Silica, crystalline (quartz)	CAS-No.: 14808-60-7	1 – 10
Limestone	Limestone (sedimentary rock) / Calcium carbonate / Marble / Acetate, 4-methyl-2-propyl-2H-tetrahydropyran-4-yl / Ground limestone / Natural calcium carbonate / Limestone (A noncombustible solid characteristic of sedimentary rock. It consists primarily of calcium carbonate.) / Chalk / Calcite / Limestone ground	CAS-No.: 1317-65-3	1 – 5

Comments : \*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

### SECTION 4: First-aid measures

#### 4.1. Description of first aid measures

- First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
- First-aid measures after skin contact : If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER/doctor. Wash contaminated clothing before reuse.
- First-aid measures after eye contact : 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.

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First-aid measures after ingestion : IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Immediately call a POISON CENTER or doctor.

### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : Causes severe damage to the respiratory tract. May cause respiratory tract irritation.  
Symptoms/effects after skin contact : Causes severe skin burns. Symptoms may include redness, pain, blisters. May cause an allergic skin reaction.  
Symptoms/effects after eye contact : Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.  
Symptoms/effects after ingestion : May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.  
Chronic symptoms : May cause cancer by inhalation. Causes damage to organs through prolonged or repeated exposure (Inhalation).

### 4.3. Immediate medical attention and special treatment, if necessary

Other medical advice or treatment : Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

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

### 5.2. Unsuitable extinguishing media

Unsuitable extinguishing media : Do not use water.

### 5.3. Specific hazards arising from the hazardous product

Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon. Aluminium oxides. Hydrogen gas. Fluoride compounds.

### 5.4. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.  
Personal Precautions, Protective Equipment and Emergency Procedures : Do not touch or walk on the spilled product.

### 6.2. Methods and materials for containment and cleaning up

For containment : Stop leak if safe to do so. Absorb and/or contain spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container. Do not flush into surface water or sewer system. Wear recommended personal protective equipment.  
Methods for cleaning up : Dike and contain spill. Sweep or shovel spills into appropriate container for disposal. Provide ventilation.

### 6.3. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection"

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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Precautions for safe handling : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes, on skin, or on clothing. Do not breathe dust/fume/gas/mist/vapours/spray. Do not swallow. Wear appropriate PPE (see Section 8). This product must only be handled by properly trained personnel. . Handle and open container with care. When using do not eat, drink or smoke. Use only in well ventilated areas.
- Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Take off immediately all contaminated clothing and wash it before reuse. Wash hands, forearms and face thoroughly after handling.

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

- Storage conditions : Keep out of the reach of children. Protect from moisture. Store in a secure location. Do not store in unlabelled containers. Keep away from incompatible materials.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

Cement, portland, chemicals (65997-15-1)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Portland cement
ACGIH OEL TWA	1 mg/m <sup>3</sup> (particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter)
Remark (ACGIH)	TLV® Basis: Pulm func; resp symptoms; asthma. Notations: A4 (Not classifiable as a Human Carcinogen)
ACGIH chemical category	Not Classifiable as a Human Carcinogen
Regulatory reference	ACGIH 2020
Calcium oxide (1305-78-8)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	2 mg/m <sup>3</sup>
Quartz (14808-60-7)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Silica crystalline - quartz
ACGIH OEL TWA	0.025 mg/m <sup>3</sup> (respirable particulate matter)
Remark (ACGIH)	TLV® Basis: Pulm fibrosis; lung cancer. Notations: A2 (Suspected Human Carcinogen)
ACGIH chemical category	Suspected Human Carcinogen
Regulatory reference	ACGIH 2022

#### 8.2. Appropriate engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station. Provide readily accessible eye wash stations and safety showers.
- Environmental exposure controls : Avoid release to the environment.

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### 8.3. Individual protection measures/Personal protective equipment

#### Hand protection:

Wear suitable gloves resistant to chemical penetration. Consult glove manufacturer's product information on material suitability and material thickness.

#### Eye protection:

Wear eye/face protection

#### Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. 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. SDSs cannot provide detailed and complete respiratory protection guidelines. Selection of respiratory protection must be done by a qualified person who has assessed the work environment.

#### Other information:

Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Semi-solid. granular paste
Colour	: Grey/white
Odour	: Odourless
Odour threshold	: No data available
pH	: > 9
Relative evaporation rate (butylacetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: > 1000 °C
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not flammable
Vapour pressure	: No data available
Relative vapour density at 20°C	: No data available
Relative density	: 1.5 – 2.9 (water=1)
Solubility	: Slightly soluble in water. Water: < 1 %
Partition coefficient n-octanol/water	: No data available
Viscosity, kinematic	: No data available
Explosive limits	: No data available

#### Calcium oxide (1305-78-8)

Vapour pressure	0 hPa (at 20 °C)
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Ashes, residues (68131-74-8)	
Boiling point	1800 – 2000 °C

Quartz (14808-60-7)	
Boiling point	2230 °C

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

Reactivity	: No dangerous reactions known under normal conditions of use. Cementitious materials react slowly with water forming hydrated compounds, releasing heat and producing a strong alkaline solution.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use.
Conditions to avoid	: No specific data.
Incompatible materials	: Strong acids. ammonium salts. Aluminium. Metals. Fluoride compounds.
Hazardous decomposition products	: May include, and are not limited to: oxides of carbon.
Hardening time:	: No additional information available

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified.
Acute toxicity (dermal)	: Not classified.
Acute toxicity (inhalation)	: Not classified.

Calcium oxide (1305-78-8)	
LD50 oral rat	500 mg/kg
LC50 inhalation rat	> 6.04 mg/l/4h
ATE CA (oral)	500 mg/kg bodyweight

Slags, ferrous metal, blast furnace (65996-69-2)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rat	> 4000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 inhalation rat	> 5.235 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)

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

Skin corrosion/irritation	: Causes severe skin burns. pH: > 12
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Calcium oxide (1305-78-8)	
pH	12.5 (saturated solution)

Serious eye damage/irritation	: Causes serious eye damage. pH: > 12
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<b>Calcium oxide (1305-78-8)</b>	
pH	12.5 (saturated solution)
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified.
Carcinogenicity	: May cause cancer by inhalation
<b>Quartz (14808-60-7)</b>	
IARC group	1 - Carcinogenic to humans
National Toxicology Program (NTP) Status	Known Human Carcinogens
Reproductive toxicity	: Not classified.
STOT-single exposure	: May cause respiratory irritation.
<b>Cement, portland, chemicals (65997-15-1)</b>	
STOT-single exposure	May cause respiratory irritation.
<b>Calcium oxide (1305-78-8)</b>	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Causes damage to organs through prolonged or repeated exposure (Inhalation)
<b>Quartz (14808-60-7)</b>	
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified.
<b>Cement, portland, chemicals (65997-15-1)</b>	
Animal studies and expert judgment for classification	False
<b>Calcium oxide (1305-78-8)</b>	
Animal studies and expert judgment for classification	False
<b>Slags, ferrous metal, blast furnace (65996-69-2)</b>	
Animal studies and expert judgment for classification	False
<b>Ashes, residues (68131-74-8)</b>	
Animal studies and expert judgment for classification	False
<b>Quartz (14808-60-7)</b>	
Animal studies and expert judgment for classification	False
<b>Limestone (1317-65-3)</b>	
Animal studies and expert judgment for classification	False
Symptoms/effects after inhalation	: Causes severe damage to the respiratory tract. May cause respiratory tract irritation.
Symptoms/effects after skin contact	: Causes severe skin burns. Symptoms may include redness, pain, blisters. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.
Symptoms/effects after ingestion	: May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.
Chronic symptoms	: May cause cancer by inhalation. Causes damage to organs through prolonged or repeated exposure (Inhalation).
Other information	: Likely routes of exposure: ingestion, inhalation, skin and eye.



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### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.  
Hazardous to the aquatic environment, short-term (acute) : Not classified.  
Hazardous to the aquatic environment, long-term (chronic) : Not classified.

Calcium oxide (1305-78-8)	
LC50 - Fish [1]	1070 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [static])
Slags, ferrous metal, blast furnace (65996-69-2)	
LC50 - Fish [1]	> 100 g/l Test organisms (species): Leuciscus idus
LC50 - Fish [2]	> 1000 g/l Test organisms (species): Leuciscus idus
NOEC (chronic)	1563 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
LOEC (chronic)	5000 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

#### 12.2. Persistence and degradability

Portland Cement, Ready-Mix Concrete	
Persistence and degradability	Not established.

#### 12.3. Bioaccumulative potential

Portland Cement, Ready-Mix Concrete	
Bioaccumulative potential	Not established.
Calcium oxide (1305-78-8)	
BCF - Fish [1]	(no bioaccumulation)

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Other adverse effects

Ozone : Not classified.  
Other information : No other effects known.

### SECTION 13: Disposal considerations

#### 13.1. Disposal methods

Product/Packaging disposal recommendations : This material must be disposed of in accordance with all local, state, provincial, and federal regulations.  
Additional information : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

### SECTION 14: Transport information

In accordance with TDG

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### 14.1. UN number

Not regulated for transport

### 14.2. UN proper shipping name

Proper Shipping Name (TDG) : Not applicable

### 14.3. Transport hazard class(es)

#### TDG

Transport hazard class(es) (TDG) : Not applicable

### 14.4. Packing group

Packing group (TDG) : Not applicable

### 14.5. Environmental hazards

Other information : No supplementary information available.

### 14.6. Special precautions for user

Special transport precautions : Do not handle until all safety precautions have been read and understood.

#### TDG

No data available

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. National regulations

All components of this product are listed, or excluded from listing, on the Canadian DSL (Domestic Substances List) and NDSL (Non-Domestic Substances List) inventories

### 15.2. International regulations

No additional information available

## SECTION 16: Other information

Issue date : 04-22-2023

Revision date : 04-21-2023

Other information : None.

Prepared by : Nexreg Compliance Inc.  
[www.Nexreg.com](http://www.Nexreg.com)



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