Cement Kiln Dust (CKD)
Safety Data Sheet
According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).
Revision Date: 01/01/2022 Date of Issue: 02/01/2022 Version: 3.2

SECTION 1: IDENTIFICATION
1.1. Product Identifier
Product Form: Mixture
Product Name: Lafarge Cement Kiln Dust (CKD)
Synonyms: Kiln Dust, Cement Lime, Raw Mix, Kiln Feed, Baghouse Dust, New Lime™
1.2. Intended Use of the Product
New Lime™ is used in the manufacture of bricks, mortar, cement, concrete, plasters, paving materials, and other construction applications.
1.3. Name, Address, and Telephone of the Responsible Party
Company – Lafarge Canada

Western Canada
#300 115 Quarry Park Road SE
Calgary, AB T2C 5G9
Phone: (403) 225-5400

Eastern Canada
6509 Airport Road
Mississauga, ON L4V 157
Phone: (905) 738-7070

Website: www.lafarge.ca

1.4. Emergency Telephone Number
Emergency Number: Chemtel 1-800-255-3924 (24 hours)

SECTION 2: HAZARDS IDENTIFICATION
2.1. Classification of the Substance or Mixture
GHS-US/CA Classification
- Skin Corr. 1C H314
- Eye Dam. 1 H318
- Skin Sens. 1 H317
- Carc. 1A H350
- STOT SE 3 H335
- STOT RE 1 H372
- Aquatic Acute 3 H402

Full text of hazard classes and H-statements: see Section 16.

2.2. Label Elements
GHS-US/CA Labeling
Hazard Pictograms (GHS-US/CA): 
- GHS05
- GHS07
- GHS08

Signal Word (GHS-US/CA): Danger
Hazard Statements (GHS-US/CA):
- H314 - Causes severe skin burns and eye damage.
- H317 - May cause an allergic skin reaction.
- H318 - Causes serious eye damage.
- H335 - May cause respiratory irritation.
- H350 - May cause cancer (Inhalation).
- H372 - Causes damage to organs (lung/respiratory system) through prolonged or repeated exposure (Inhalation).
- H402 - Harmful to aquatic life.

Precautionary Statements (GHS-US/CA):
- P201 - Obtain special instructions before use.
- P202 - Do not handle until all safety precautions have been read and understood.
- P260 - Do not breathe vapors, mist, or spray, dust.
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P264 - Wash hands, forearms, and other exposed areas 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.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing, and eye protection.
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.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P310 - Immediately call a POISON CENTER or doctor.
P314 - Get medical advice/attention if you feel unwell.
P321 - Specific treatment (see Section 4 on this SDS).
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

2.3. Other Hazards
Exposure may aggravate pre-existing eye, skin, or respiratory conditions. Individuals with lung disease (e.g. bronchitis, emphysema, COPD, pulmonary disease) or sensitivity to hexavalent chromium can be aggravated by exposure.

2.4. Unknown Acute Toxicity (GHS-US/CA)
No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product Identifier</th>
<th>%</th>
<th>GHS Ingredient Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flue dust, portland cement</td>
<td>(CAS-No.) 68475-76-3</td>
<td>100</td>
<td>Skin Irrit. 2, H315</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Eye Dam. 1, H318</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Skin Sens. 1, H317</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>STOT SE 3, H335</td>
</tr>
</tbody>
</table>

Contains:

<table>
<thead>
<tr>
<th>Name</th>
<th>Product Identifier</th>
<th>%</th>
<th>GHS Ingredient Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limestone</td>
<td>(CAS-No.) 1317-65-3</td>
<td>10-80</td>
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</tr>
<tr>
<td>Calcium oxide</td>
<td>(CAS-No.) 1305-78-8</td>
<td>5-50</td>
<td>Skin Irrit. 2, H315</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Eye Dam. 1, H318</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>STOT SE 3, H335</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Aquatic Acute 3, H402</td>
</tr>
<tr>
<td>Quartz</td>
<td>(CAS-No.) 14808-60-7</td>
<td>1-10</td>
<td>Carc. 1A, H350</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>STOT SE 3, H335</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>STOT RE 1, H372</td>
</tr>
<tr>
<td>Magnesium oxide (MgO)</td>
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<td>1-2</td>
<td>Not classified</td>
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</tbody>
</table>

Full text of H-phrases: see Section 16.

*Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%).

SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures
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**General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**Inhalation:** When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

**Skin Contact:** Remove contaminated clothing. Immediately flush skin with plenty of water for at least 30 minutes and continue flushing throughout emergency transport, if needed. Immediately call a poison center or physician. Wash contaminated clothing before reuse.

**Eye Contact:** Get medical attention immediately and begin flushing eyes with plenty of water for at least 30 minutes and continue flushing eyes throughout emergency transport. Immediately call a poison center or physician. Occasionally lift the upper and lower eyelids during flushing. Remove any contact lenses, if possible. Chemical burns should be treated promptly by a physician.

**Ingestion:** Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

### 4.2. Most Important Symptoms and Effects Both Acute and Delayed

**General:** Causes severe skin burns and eye damage. May cause respiratory irritation. May cause cancer. Causes damage to organs through prolonged or repeated exposure.

**Inhalation:** Irritation of the respiratory tract and the other mucous membranes. The three types of silicosis include: 1) Simple chronic silicosis – which results from long-term exposure (more than 20 years) to low amounts of respirable crystalline silica. Nodules of chronic inflammation and scarring provoked by the respirable crystalline silica form in the lungs and chest lymph nodes. This disease may feature breathlessness and may resemble chronic obstructive pulmonary disease (COPD); 2) Accelerated silicosis – occurs after exposure to larger amounts of respirable crystalline silica over a shorter period of time (5-15 years); 3) Acute silicosis – results from short-term exposure to very large amounts of respirable crystalline silica. The lungs become very inflamed and may fill with fluid, causing severe shortness of breath and low blood oxygen levels. Inflammation, scarring, and symptoms progress faster in accelerated silicosis than in simple silicosis. Progressive massive fibrosis may occur in simple or accelerated silicosis, but is more common in the accelerated form. Progressive massive fibrosis results from severe scarring and leads to the destruction of normal lung structures.

**Skin Contact:** Redness, pain, swelling, itching, burning, dryness, and dermatitis. May cause an allergic skin reaction. Concrete may cause dry skin, discomfort, irritation, severe burns, and dermatitis. Exposure of sufficient duration to wet concrete can cause serious, potentially irreversible damage to skin, eye, respiratory and digestive tracts due to chemical (caustic) burns, including third degree burns. A skin exposure may be hazardous even if there is no pain or discomfort. Unhardened concrete is capable of causing dermatitis by irritation and allergy. Skin affected by dermatitis may include symptoms such as, redness, itching, rash, scaling, and cracking. Irritant dermatitis is caused by the physical properties of concrete including alkalinity and abrasion. Allergic contact dermatitis is caused by sensitization to hexavalent chromium (chromate) potentially present in concrete. The reaction can range from a mild rash to severe skin ulcers. Persons already sensitized may react to the first contact with wet concrete. Others may develop allergic dermatitis after years of repeated contact with wet concrete.

**Eye Contact:** Potentially causes permanent damage to the cornea, iris, or conjunctiva. Airborne dust may cause immediate or delayed irritation or inflammation. Eye contact with large amounts of dry powder or with wet cement can cause moderate eye irritation, chemical burns and blindness. Eye exposures require immediate first aid and medical attention to prevent significant damage to the eye.

**Ingestion:** Ingestion may cause adverse effects.

**Chronic Symptoms:** May cause cancer. Causes damage to organs through prolonged or repeated exposure.

### 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

**SECTION 5: FIRE-FIGHTING MEASURES**

**5.1. Extinguishing Media**

- **Suitable Extinguishing Media:** Water spray, dry chemical, foam, carbon dioxide.
- **Unsuitable Extinguishing Media:** Do not use a heavy water stream. Use of heavy stream of water may spread fire.

**5.2. Special Hazards Arising From the Substance or Mixture**

- **Fire Hazard:** Not considered flammable but may burn at high temperatures.
- **Explosion Hazard:** Product is not explosive.
- **Reactivity:** Hazardous reactions will not occur under normal conditions.

**5.3. Advice for Firefighters**

- **Precautionary Measures Fire:** Exercise caution when fighting any chemical fire.
- **Firefighting Instructions:** Use water spray or fog for cooling exposed containers.
Cement Kiln Dust (CKD)

Safety Data Sheet

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- **Protection During Firefighting**: Do not enter fire area without proper protective equipment, including respiratory protection.
- **Hazardous Combustion Products**: Silicon oxides.
- **Reference to Other Sections**
  Refer to Section 9 for flammability properties.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. **Personal Precautions, Protective Equipment and Emergency Procedures**

**General Measures**: Do not get in eyes, on skin, or on clothing. Do not handle until all safety precautions have been read and understood.

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 cleanup crew with proper protection.

**Emergency Procedures**: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

Ventilate area.

6.2. **Environmental Precautions**

Prevent entry to sewers and public waters.

6.3. **Methods and Materials for Containment and Cleaning Up**

**For Containment**: Contain solid spills with appropriate barriers and prevent migration and entry into sewers or streams.

**Methods for Cleaning Up**: Clean up spills immediately and dispose of waste safely. Recover the product by vacuuming, shoveling or sweeping. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill. Vacuum clean-up is preferred. If sweeping is required use a dust suppressant.

6.4. **Reference to Other Sections**

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

### SECTION 7: HANDLING AND STORAGE

7.1. **Precautions for Safe Handling**

**Additional Hazards When Processed**: Cutting, crushing, sanding or grinding of crystalline silica-bearing materials will release respirable crystalline silica. Use all appropriate measures of dust control or suppression, and Personal Protective Equipment (PPE) described in Section 8 below. Heavy material - proper lifting methods or equipment.

**Precautions for Safe Handling**: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid contact with eyes, skin and clothing. Do not get in eyes, on skin, or on clothing. Obtain special instructions before use.

**Hygiene Measures**: Handle in accordance with good industrial hygiene and safety procedures.

7.2. **Conditions for Safe Storage, Including Any Incompatibilities**

**Technical Measures**: Comply with applicable regulations.

**Storage Conditions**: Keep container closed when not in use. Store in a dry, cool place away from incompatible materials. Store in original container or corrosive resistant and/or lined container.

**Incompatible Materials**: Acids, ammonium salts and aluminum metal. Cement dissolves in hydrofluoric acid, producing corrosive silicon tetrafluoride gas. Cement reacts with water to form silicates and calcium hydroxide. Silicates react with powerful oxidizers such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, and oxygen difluoride.

7.3. **Specific End Use(s)**

New LimeTM is used in the manufacture of bricks, mortar, cement, concrete, plasters, paving materials, and other construction applications.

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. **Control Parameters**

For substances listed in Section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

<table>
<thead>
<tr>
<th>Limestone (1317-65-3)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mexico</strong></td>
</tr>
<tr>
<td>OEL TWA (mg/m³)</td>
</tr>
<tr>
<td>OEL STEL (mg/m³)</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>Location</th>
<th>Standard</th>
<th>Concentration (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA OSHA</td>
<td>OSHA PEL (TWA)</td>
<td>15 mg/m³ (total dust)</td>
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<tr>
<td></td>
<td></td>
<td>5 mg/m³ (respirable fraction)</td>
</tr>
<tr>
<td>USA NIOSH</td>
<td>NIOSH REL (TWA)</td>
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<tr>
<td></td>
<td></td>
<td>5 mg/m³ (respirable dust)</td>
</tr>
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</tr>
<tr>
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</tr>
<tr>
<td>British Columbia</td>
<td>OEL TWA (mg/m³)</td>
<td>10 mg/m³ (total dust)</td>
</tr>
<tr>
<td></td>
<td></td>
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<tr>
<td>Nunavut</td>
<td>OEL STEL (mg/m³)</td>
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<tr>
<td>Nunavut</td>
<td>OEL TWA (mg/m³)</td>
<td>10 mg/m³</td>
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<tr>
<td>Northwest Territories</td>
<td>OEL STEL (mg/m³)</td>
<td>20 mg/m³</td>
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<tr>
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<tr>
<td>Québec</td>
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<tr>
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<tr>
<td>Yukon</td>
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**Calcium oxide (1305-78-8)**

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<th>Standard</th>
<th>Concentration (mg/m³)</th>
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<tr>
<td>Mexico</td>
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<td>USA ACGIH</td>
<td>ACGIH TWA (mg/m³)</td>
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<td>OEL TWA (mg/m³)</td>
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<tr>
<td>New Brunswick</td>
<td>OEL TWA (mg/m³)</td>
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<td>Newfoundland &amp; Labrador</td>
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<tr>
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<td>2 mg/m³</td>
</tr>
<tr>
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<tr>
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<tr>
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<tr>
<td>Yukon</td>
<td>OEL TWA (mg/m³)</td>
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**Quartz (14808-60-7)**

<table>
<thead>
<tr>
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<th>Standard</th>
<th>Concentration (mg/m³)</th>
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<tbody>
<tr>
<td>Mexico</td>
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<td>0.1 mg/m³ (respirable fraction)</td>
</tr>
<tr>
<td>USA ACGIH</td>
<td>ACGIH TWA (mg/m³)</td>
<td>0.025 mg/m³ (respirable particulate matter)</td>
</tr>
<tr>
<td>USA ACGIH</td>
<td>ACGIH chemical category</td>
<td>A2 - Suspected Human Carcinogen</td>
</tr>
<tr>
<td>USA OSHA</td>
<td>OSHA PEL (TWA) (mg/m³)</td>
<td>50 µg/m³</td>
</tr>
<tr>
<td>USA NIOSH</td>
<td>NIOSH REL (TWA) (mg/m³)</td>
<td>0.05 mg/m³ (respirable dust)</td>
</tr>
<tr>
<td>USA IDLH</td>
<td>US IDLH (mg/m³)</td>
<td>50 mg/m³ (respirable dust)</td>
</tr>
<tr>
<td>Alberta</td>
<td>OEL TWA (mg/m³)</td>
<td>0.025 mg/m³ (respirable particulate)</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>Region</th>
<th>OEL TWA (mg/m³)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>British Columbia</td>
<td>0.025 mg/m³</td>
<td>(respirable)</td>
</tr>
<tr>
<td>Manitoba</td>
<td>0.025 mg/m³</td>
<td>(respirable particulate matter)</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>0.1 mg/m³</td>
<td>(respirable fraction)</td>
</tr>
<tr>
<td>Newfoundland &amp; Labrador</td>
<td>0.025 mg/m³</td>
<td>(respirable particulate matter)</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>0.025 mg/m³</td>
<td>(respirable particulate matter)</td>
</tr>
<tr>
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<td>(respirable fraction)</td>
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<tr>
<td>Northwest Territories</td>
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<td>(respirable fraction)</td>
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<tr>
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<td>(designated substances regulation-respirable)</td>
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<tr>
<td>Prince Edward Island</td>
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<td>(respirable particulate matter)</td>
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<tr>
<td>Québec</td>
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<td>(respirable dust)</td>
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<tr>
<td>Saskatchewan</td>
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<tr>
<td>Yukon</td>
<td>300 particle/mL</td>
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**Magnesium oxide (MgO) (1309-48-4)**

<table>
<thead>
<tr>
<th>Region</th>
<th>OEL TWA (mg/m³)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mexico</td>
<td>10 mg/m³</td>
<td>(fume)</td>
</tr>
<tr>
<td>USA ACGIH</td>
<td>10 mg/m³</td>
<td>(inhalable particulate matter)</td>
</tr>
<tr>
<td>USA ACGIH</td>
<td>Not Classifiable as a Human Carcinogen</td>
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</tr>
<tr>
<td>USA OSHA</td>
<td>15 mg/m³</td>
<td>(fume, total particulate)</td>
</tr>
<tr>
<td>USA IDLH</td>
<td>750 mg/m³</td>
<td>(fume)</td>
</tr>
<tr>
<td>Alberta</td>
<td>10 mg/m³</td>
<td>(fume)</td>
</tr>
<tr>
<td>British Columbia</td>
<td>10 mg/m³</td>
<td>(respirable dust and fume)</td>
</tr>
<tr>
<td>British Columbia</td>
<td>10 mg/m³</td>
<td>(fume, inhalable)</td>
</tr>
<tr>
<td></td>
<td>3 mg/m³</td>
<td>(respirable dust and fume)</td>
</tr>
<tr>
<td>Manitoba</td>
<td>10 mg/m³</td>
<td>(inhalable particulate matter)</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>10 mg/m³</td>
<td>(fume)</td>
</tr>
<tr>
<td>Newfoundland &amp; Labrador</td>
<td>10 mg/m³</td>
<td>(inhalable particulate matter)</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>10 mg/m³</td>
<td>(inhalable particulate matter)</td>
</tr>
<tr>
<td>Nunavut</td>
<td>20 mg/m³</td>
<td>(inhalable fraction)</td>
</tr>
<tr>
<td>Nunavut</td>
<td>10 mg/m³</td>
<td>(inhalable fraction)</td>
</tr>
<tr>
<td>Northwest Territories</td>
<td>20 mg/m³</td>
<td>(inhalable fraction)</td>
</tr>
<tr>
<td>NorthEast Territories</td>
<td>10 mg/m³</td>
<td>(inhalable fraction)</td>
</tr>
<tr>
<td>Ontario</td>
<td>10 mg/m³</td>
<td>(inhalable)</td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td>10 mg/m³</td>
<td>(inhalable particulate matter)</td>
</tr>
<tr>
<td>Québec</td>
<td>10 mg/m³</td>
<td>(fume)</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>20 mg/m³</td>
<td>(inhalable fraction)</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>10 mg/m³</td>
<td>(inhalable fraction)</td>
</tr>
<tr>
<td>Yukon</td>
<td>10 mg/m³</td>
<td>(fume)</td>
</tr>
<tr>
<td>Yukon</td>
<td>10 mg/m³</td>
<td>(fume)</td>
</tr>
</tbody>
</table>

## 8.2. Exposure Controls

**Appropriate Engineering Controls:** Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

**Personal Protective Equipment:** Gloves. Protective clothing. Protective goggles. Insufficient ventilation and/or dust generation: wear respiratory protection.

**Materials for Protective Clothing:** Chemically resistant materials and fabrics.

**Hand Protection:** Wear protective gloves.

**Eye and Face Protection:** Chemical safety goggles.

**Skin and Body Protection:** Wear suitable protective clothing.
Cement Kiln Dust (CKD)
Safety Data Sheet
According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, NIOSH approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties
Physical State: Solid (Powder)
Appearance: Gray, Tan, or White Powder
Odor: None
Odor Threshold: Not available
pH: 10 - 13 (In Water)
Evaporation Rate: Not available
Melting Point: Not available
Freezing Point: Not available
Boiling Point: > 1000 °C (> 1832 °F)
Flash Point: 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 - 2.8 (Water = 1)
Solubility: 2 – 20% (In Water)
Partition Coefficient: N-Octanol/Water: Not available
Viscosity: Not available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity: Hazardous reactions will not occur under normal conditions.
10.2. Chemical Stability: Stable under recommended handling and storage conditions (see Section 7).
10.3. Possibility of Hazardous Reactions: Hazardous polymerization will not occur.
10.5. Incompatible Materials: Acids, ammonium salts and aluminum metal. Cement dissolves in hydrofluoric acid, producing corrosive silicon tetrafluoride gas. Cement reacts with water to form silicates and calcium hydroxide. Silicates react with powerful oxidizers such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, and oxygen difluoride.
10.6. Hazardous Decomposition Products: None expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects - Product
Acute Toxicity (Oral): Not classified
Acute Toxicity (Dermal): Not classified
Acute Toxicity (Inhalation): Not classified
LD50 and LC50 Data: Not available
Skin Corrosion/Irritation: Causes severe skin burns and eye damage.
pH: 12 - 13 (In Water)
Eye Damage/Irritation: Causes serious eye damage.
pH: 12 - 13 (In Water)
Respiratory or Skin Sensitization: May cause an allergic skin reaction.
Germ Cell Mutagenicity: Not classified
Cement Kiln Dust (CKD)

Safety Data Sheet
According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Carcinogenicity: May cause cancer (Inhalation).

Specific Target Organ Toxicity (Repeated Exposure): Causes damage to organs (lung/respiratory system) through prolonged or repeated exposure (Inhalation).

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): May cause respiratory irritation.

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Irritation of the respiratory tract and the other mucous membranes. The three types of silicosis include: 1) Simple chronic silicosis – which results from long-term exposure (more than 20 years) to low amounts of respirable crystalline silica. Nodules of chronic inflammation and scarring provoked by the respirable crystalline silica form in the lungs and chest lymph nodes. This disease may feature breathlessness and may resemble chronic obstructive pulmonary disease (COPD); 2) Accelerated silicosis – occurs after exposure to larger amounts of respirable crystalline silica over a shorter period of time (5-15 years); 3) Acute silicosis – results from short-term exposure to very large amounts of respirable crystalline silica. The lungs become very inflamed and may fill with fluid, causing severe shortness of breath and low blood oxygen levels. Inflammation, scarring, and symptoms progress faster in accelerated silicosis than in simple silicosis. Progressive massive fibrosis may occur in simple or accelerated silicosis, but is more common in the accelerated form. Progressive massive fibrosis results from severe scarring and leads to the destruction of normal lung structures.

Symptoms/Injuries After Skin Contact: Redness, pain, swelling, itching, burning, dryness, and dermatitis. May cause an allergic skin reaction. Concrete may cause dry skin, discomfort, irritation, severe burns, and dermatitis. Exposure of sufficient duration to wet concrete can cause serious, potentially irreversible damage to skin, eye, respiratory and digestive tracts due to chemical (caustic) burns, including third degree burns. A skin exposure may be hazardous even if there is no pain or discomfort. Unhardened concrete is capable of causing dermatitis by irritation and allergy. Skin affected by dermatitis may include symptoms such as, redness, itching, rash, scaling, and cracking. Irritant dermatitis is caused by the physical properties of concrete including alkalinity and abrasion. Allergic contact dermatitis is caused by sensitization to hexavalent chromium (chromate) potentially present in concrete. The reaction can range from a mild rash to severe skin ulcers. Persons already sensitized may react to the first contact with wet concrete. Others may develop allergic dermatitis after years of repeated contact with wet concrete.

Symptoms/Injuries After Eye Contact: Potentially causes permanent damage to the cornea, iris, or conjunctiva. Airborne dust may cause immediate or delayed irritation or inflammation. Eye contact with large amounts of dry powder or with wet cement can cause moderate eye irritation, chemical burns and blindness. Eye exposures require immediate first aid and medical attention to prevent significant damage to the eye.

Symptoms/Injuries After Ingestion: Ingestion may cause adverse effects.

Chronic Symptoms: May cause cancer. Causes damage to organs through prolonged or repeated exposure.

11.2. Information on Toxicological Effects - Ingredient(s)

<table>
<thead>
<tr>
<th>LD50 and LC50 Data:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium oxide (1305-78-8)</td>
</tr>
<tr>
<td>LD50 Oral Rat</td>
</tr>
<tr>
<td>LDS0 Dermal Rabbit</td>
</tr>
<tr>
<td>Quartz (14808-60-7)</td>
</tr>
<tr>
<td>LD50 Oral Rat</td>
</tr>
<tr>
<td>LDS0 Dermal Rat</td>
</tr>
<tr>
<td>Magnesium oxide (MgO) (1309-48-4)</td>
</tr>
<tr>
<td>LD50 Oral Rat</td>
</tr>
<tr>
<td>Quartz (14808-60-7)</td>
</tr>
<tr>
<td>IARC Group</td>
</tr>
<tr>
<td>National Toxicology Program (NTP) Status</td>
</tr>
<tr>
<td>OSHA Hazard Communication Carcinogen List</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - General: Harmful to aquatic life.

<table>
<thead>
<tr>
<th>Calcium oxide (1305-78-8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 Fish 1</td>
</tr>
</tbody>
</table>
Cement Kiln Dust (CKD)
Safety Data Sheet
According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

12.2. Persistence and Degradability

New Lime™
Persistence and Degradability
Not established.

12.3. Bioaccumulative Potential

New Lime™
Bioaccumulative Potential
Not established.

Calcium oxide (1305-78-8)
BCF Fish 1 (no bioaccumulation)

12.4. Mobility in Soil

Not available

12.5. Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

Additional Information: Container may remain hazardous when empty. Continue to observe all precautions.

Ecology - Waste Materials: Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

14.1. In Accordance with DOT
Not regulated for transport

14.2. In Accordance with IMDG
Not regulated for transport

14.3. In Accordance with IATA
Not regulated for transport

14.4. In Accordance with TDG
Not regulated for transport

SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

New Lime™

SARA Section 311/312 Hazard Classes
Health hazard - Specific target organ toxicity (single or repeated exposure)
Health hazard - Serious eye damage or eye irritation
Health hazard - Acute toxicity (any route of exposure)
Health hazard - Respiratory or skin sensitization

Flue dust, portland cement (68475-76-3)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Limestone (1317-65-3)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Calcium oxide (1305-78-8)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Quartz (14808-60-7)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Magnesium oxide (MgO) (1309-48-4)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. US State Regulations

Quartz (14808-60-7)
U.S. - California - Proposition 65 - Carcinogens List
WARNING: This product contains chemicals known to the State of California to cause cancer.

Limestone (1317-65-3)
Cement Kiln Dust (CKD)
Safety Data Sheet
According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

| U.S. - Massachusetts - Right To Know List |
| U.S. - New Jersey - Right to Know Hazardous Substance List |
| U.S. - Pennsylvania - RTK (Right to Know) List |

**Cement Kiln Dust (CKD) Safety Data Sheet**

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

**01/01/2022 EN (English US) 10/11**

**Calcium oxide (1305-78-8)**
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

**Quartz (14808-60-7)**
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

**Magnesium oxide (MgO) (1309-48-4)**
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

15.3. **Canadian Regulations**

**Flue dust, portland cement (68475-76-3)**
Listed on the Canadian DSL (Domestic Substances List)

**Limestone (1317-65-3)**
Listed on the Canadian NDSL (Non-Domestic Substances List)

**Calcium oxide (1305-78-8)**
Listed on the Canadian DSL (Domestic Substances List)

**Quartz (14808-60-7)**
Listed on the Canadian DSL (Domestic Substances List)

**Magnesium oxide (MgO) (1309-48-4)**
Listed on the Canadian DSL (Domestic Substances List)

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

**Date of Preparation or Latest Revision**
January 1, 2021

**Other Information**
This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada’s Hazardous Products Regulations (HPR) SOR/2015-17.

**GHS Full Text Phrases:**

- **Aquatic Acute 3**
  - Hazardous to the aquatic environment - Acute Hazard Category 3

- **Carc. 1A**
  - Carcinogenicity Category 1A

- **Eye Dam. 1**
  - Serious eye damage/eye irritation Category 1

- **Skin Corr. 1C**
  - Skin corrosion/irritation Category 1C

- **Skin Irrit. 2**
  - Skin corrosion/irritation Category 2

- **Skin Sens. 1**
  - Skin sensitization, Category 1

- **STOT RE 1**
  - Specific target organ toxicity (repeated exposure) Category 1

- **STOT SE 3**
  - Specific target organ toxicity (single exposure) Category 3

- **H314**
  - Causes severe skin burns and eye damage

- **H315**
  - Causes skin irritation

- **H317**
  - May cause an allergic skin reaction

- **H318**
  - Causes serious eye damage

- **H335**
  - May cause respiratory irritation

- **H350**
  - May cause cancer

- **H372**
  - Causes damage to organs through prolonged or repeated exposure

- **H402**
  - Harmful to aquatic life
Cement Kiln Dust (CKD)
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