

## SAFETY DATA SHEET

| SECTION 1 | IDENTIFICATION |
|-----------|----------------|
|-----------|----------------|

## Product

Name: Alkagen

Other Names: Hydrated lime slurry; Calcium Hydroxide Slurry; Slurry; Milk of Lime

Recommended Uses: Water Treatment; pH adjustment

## Company Identification:

## US Operations:

Lhoist North America, Inc.  
600 Clearfork Main St, Ste. 300  
Fort Worth, TX 76109  
817-732-8164

## Canadian Operations:

Lhoist North America of Canada, Inc.  
20303-102B Ave.  
Langley, BC V1M 3H1  
604-888-4333

## Emergency Phone Number:

Chemtrec 1-800-424-9300

| SECTION 2 | HAZARDS(S) IDENTIFICATION |
|-----------|---------------------------|
|-----------|---------------------------|

## Classification

Eye Damage – Category 1

Carcinogen – Category 1

Skin Irritation – Category 2

Specific Target Organ Toxicity Single Exposure – Category 3  
(Respiratory System)Specific Target Organ Toxicity Repeat Exposure – Category 1  
(Respiratory System)

## Labeling:

## Pictograms:



Signal Word(s): Danger



Hazard Statements: Causes serious eye damage.  
Causes skin irritation.  
May cause respiratory irritation.  
Causes damage to lungs through prolonged or repeated exposure when inhaled.  
May cause cancer through inhalation.

Precautionary Statements:

Wear protective gloves and eye protection. Wash exposed skin thoroughly after handling. Do not breathe dust. Use only outdoors or in a well-ventilated area. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not eat, drink or smoke when using this product.

If on skin: wash exposed skin with plenty of water. If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention immediately. If inhaled: Remove person to fresh air and keep comfortable for breathing. Seek medical attention if you feel unwell.

If exposed or concerned: Get medical advice

Dispose of contents or containers in accordance with applicable regulations.

Other Hazards: None.

|           |                                         |
|-----------|-----------------------------------------|
| SECTION 3 | COMPOSITION/ INFORMATION ON INGREDIENTS |
|-----------|-----------------------------------------|

Chemical Name: Calcium hydroxide slurry

Common names and synonyms: Hydrated lime slurry; Calcium Hydroxide Slurry; Slurry; Milk of Lime

| Chemical Identity  | CAS #      | Concentration, % Wt. |
|--------------------|------------|----------------------|
| Calcium Hydroxide  | 1305-62-0  | 43 - 47              |
| Crystalline Silica | 14808-60-7 | < 1                  |
| Water              | 7732-18-5  | Balance              |

|                  |                           |
|------------------|---------------------------|
| <b>SECTION 4</b> | <b>FIRST AID MEASURES</b> |
|------------------|---------------------------|

**Eye Contact:** Contact can cause severe irritation or burning of eyes, including permanent damage. Immediately flush eyes with generous amounts of water for as long as needed. This may take several minutes. Pull back the eyelid to ensure that all of the lime has been washed out. Seek medical attention immediately. Do not rub eyes.

**Inhalation:** This product can cause severe irritation of the respiratory system if inhaled as a mist or dried powder. Move victim to fresh air. Seek medical attention if necessary. If breathing has stopped, give artificial respiration.

**Skin Contact:** Contact can cause severe irritation or burning of skin. Wash exposed area with large amounts of water. Seek medical attention immediately.

**Ingestion:** This product can cause severe irritation or burning of gastrointestinal tract if swallowed. Do not induce vomiting. Seek medical attention immediately. Never give anything by mouth unless instructed to do so by medical personnel.

**Most important symptoms and effects, both acute and delayed:** Irritation of skin, eyes, gastrointestinal tract or respiratory tract. Long-term exposure by inhalation of mist or dry powder may cause permanent damage. This product contains crystalline silica, which has been classified by IARC as (Group I) carcinogenic to humans when inhaled. Inhalation of silica can also cause a chronic lung disorder, silicosis.

**Note to Physician:** Provide general supportive measures and treat symptomatically.

|                  |                              |
|------------------|------------------------------|
| <b>SECTION 5</b> | <b>FIREFIGHTING MEASURES</b> |
|------------------|------------------------------|

#### Extinguishing Media

**Appropriate Extinguishing Media:** Use dry chemical fire extinguisher

**Inappropriate Extinguishing Media:** Do not use halogenated compounds.

#### Firefighting

**Fire Hazards:** Alkagen is not combustible or flammable. Alkagen is not considered to be an explosive hazard, although reaction with incompatible materials may rupture containers.

**Hazardous Combustion Products:** None

**Special Protective Equipment and Fire Fighting Instructions:** Keep personnel away from and upwind of fire. Wear full fire-fighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).

|           |                             |
|-----------|-----------------------------|
| SECTION 6 | ACCIDENTAL RELEASE MEASURES |
|-----------|-----------------------------|

Personal Precautions: Use proper protective equipment.

Environmental Precautions: For large spills, as much as possible, avoid the generation of dusts. Prevent release to sewers or waterways.

Methods and Materials for Containment and Cleaning Up:

Small Spills: Use wet material containment methods. Avoid generating dust if dry. Do not clean up with compressed air. Store collected materials in sealed plastic or metal containers. Residue on surfaces may be water washed.

Large Spills: Use wet material containment methods. If material has sufficiently dried to generate dust, evacuate area downwind of clean-up operations to minimize dust exposure. Store spilled materials in sealed plastic or metal containers.

|           |                      |
|-----------|----------------------|
| SECTION 7 | HANDLING AND STORAGE |
|-----------|----------------------|

Precautions for Safe Handling: Keep in tightly closed containers. Protect containers from physical damage. Avoid direct skin contact with the material.

Conditions for Safe Storage, Including any Incompatibilities: Store in a cool and well-ventilated location. Do not store near incompatible materials (see Section 10 below). Keep away from moisture. Do not store or ship in aluminum containers.

|           |                                        |
|-----------|----------------------------------------|
| SECTION 8 | EXPOSURE CONTROLS/ PERSONAL PROTECTION |
|-----------|----------------------------------------|

Control Parameters:

| Component          | CAS #      | Exposure Limits                                                                                                   |
|--------------------|------------|-------------------------------------------------------------------------------------------------------------------|
| Calcium Hydroxide  | 1305-62-0  | OSHA PEL: 15 mg/m <sup>3</sup> (total) 5 mg/m <sup>3</sup> (respirable)<br>ACGIH TLV: 5 mg/m <sup>3</sup>         |
| Crystalline Silica | 14808-60-7 | OSHA PEL: 0.050 mg/m <sup>3</sup> as an 8 hr. TWA (respirable)<br>ACGIH TLV: 0.025 mg/m <sup>3</sup> (respirable) |

Appropriate Engineering Controls: Provide ventilation adequate to maintain PELs.

Personal Protection

Respiratory Protection: Use NIOSH approved respirators if airborne concentration exceeds PEL.

Eye Protection: Use safety glasses with side shields or safety goggles. Contact lenses should not be worn when working with lime products.

Skin Protection: If there is a risk of skin contact, wear appropriate clothing and gloves to prevent contact.

Other: Eye wash fountain and emergency showers are recommended.

|           |                                  |
|-----------|----------------------------------|
| SECTION 9 | PHYSICAL AND CHEMICAL PROPERTIES |
|-----------|----------------------------------|

#### Appearance

Physical State: Solids suspended in a water slurry

Color: White

Odor: Odorless

Odor Threshold: N/ A

pH: 12.44 @ 25° C

Melting Point: N/ A

Initial Boiling Point: N/ A

Freezing Point: N/ A

Flash Point: N/ A

Evaporation Rate: N/ A

Flammability (solid, gas): Non-flammable

Explosion Limits: N/ A

Vapor Pressure: N/ A

Vapor Density: N/ A

Relative Density: 1.32 – 1.36

Solubility(ies): Solubility is 1.6 g/L at 25° C

Partition coefficient: Relatively insoluble

Auto-ignition Temperature: N/ A

Decomposition Temperature: 580° C / 1076° F

Viscosity: 200 – 3000 cps

|            |                          |
|------------|--------------------------|
| SECTION 10 | STABILITY AND REACTIVITY |
|------------|--------------------------|

Reactivity:

Chemical Stability: Alkagen is chemically stable.

Possibility of Hazardous Reactions: See reactivity above

Conditions to Avoid: Do not allow Alkagen to come into contact with incompatible materials.

Incompatible Materials: Alkagen should not be mixed or stored with the following materials, due to the potential for violent reaction and release of heat:

- Acids (unless in a controlled process)
- Reactive Fluoridated Compounds
- Reactive Brominated Compounds
- Reactive Powdered Metals
- Organic Acid Anhydrides
- Nitro-Organic Compounds
- Reactive Phosphorous Compounds
- Interhalogenated Compounds

Hazardous Decomposition Products: None

|            |                           |
|------------|---------------------------|
| SECTION 11 | TOXICOLOGICAL INFORMATION |
|------------|---------------------------|

Health Effects: see First Aid discussion in Section 4

Routes of Exposure: see First Aid discussion in Section 4

Symptoms Related to Exposure: see First Aid discussion in Section 4

Carcinogen Listing: Alkagen is not listed by MSHA, OSHA, or IARC as a carcinogen, but this product contains crystalline silica, which has been classified by IARC as (Group I) carcinogenic to humans when inhaled.

|            |                        |
|------------|------------------------|
| SECTION 12 | ECOLOGICAL INFORMATION |
|------------|------------------------|

Ecotoxicity: Because of the high pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems in high concentrations.

Persistence and Degradability: Reacts with atmospheric CO<sub>2</sub> over time to form calcium carbonate



Alkagen – January 27, 2020

Bioaccumulation Potential: This material shows no bioaccumulation effect or food chain concentration toxicity.

Mobility in Soil: Minimal mobility in soil. Reacts with clay portion of soil to form calcium silicates and calcium aluminates

Other Adverse Effects: This material is alkaline and if released into water or moist soil will cause an increase in pH

|            |                         |
|------------|-------------------------|
| SECTION 13 | DISPOSAL CONSIDERATIONS |
|------------|-------------------------|

Disposal Recommendations: Dispose of in accordance with all applicable federal, state, and local environmental regulations.

Regulatory Disposal Information: If this product as supplied, and unmixed, becomes a waste, it will not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act.

|            |                       |
|------------|-----------------------|
| SECTION 14 | TRANSPORT INFORMATION |
|------------|-----------------------|

UN Number: Not Regulated

UN Proper Shipping Name: Not Regulated

Transport Hazard Class(es): Not Regulated

Packing Group: Not Regulated

Marine Pollutant (y/n): This material is alkaline and if released into water or moist soil will cause an increase in pH.

Special Precautions: None

|            |                        |
|------------|------------------------|
| SECTION 15 | REGULATORY INFORMATION |
|------------|------------------------|

National Chemical Inventory Listings:

All chemical ingredients are listed on the USEPA TSCA Inventory List.

US Regulations:

RCRA Hazardous Waste Number: not listed (40 CFR 261.33)

RCRA Hazardous Waste Classification (40 CFR 261): not classified

CERCLA Hazardous Substance (40 CFR 302.4) unlisted specific per RCRA, Sec. 3001;

CWA, Sec. 311 (b) (4); CWA, Sec. 307(a), CAA, Sec. 112

CERCLA Reportable Quantity (RQ) not listed.

SARA 311/312 Codes: not listed.

SARA Toxic Chemical (40 CFR 372.65): not listed.

SARA EHS (Extremely Hazardous Substance) (40 CFR 355): Not listed, Threshold Planning Quantity (TPQ): not listed



Alkagen – January 27, 2020

Specific State Regulations: ⚠️ WARNING: This product can expose you to chemicals, including crystalline silica, which is known to the State of California to cause cancer. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

These naturally occurring impurities may also be regulated by other States.

Canadian DSL: Listed

Canadian NPRI: None of the components are listed

CEPA Toxic Substances: None of the components are listed

|            |                   |
|------------|-------------------|
| SECTION 16 | OTHER INFORMATION |
|------------|-------------------|

Prepared By: Lhoist North America Technical Services

Date Prepared: January 27, 2020

Revision: 2020-1

Abbreviations:

- N/A Not Available or Not Applicable
- IARC International Agency for Research on Cancer
- IATA International Air Transport Association
- ACGIH American Conference of Governmental Industrial Hygienists
- TWA Time Weighted Average
- PEL Permissible Exposure Limit
- TLV Threshold Limit Value
- REL Recommended Exposure Limit

*Lhoist North America provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person. Individuals receiving this information must consult their own technical and legal advisors and/or exercise their own judgment in determining its appropriateness for a particular purpose. Lhoist North America makes no representations or warranties, either express or implied, including without limitation and warranties of merchantability or fitness for a particular purpose with respect to the Information set forth herein or the product(s) to which the information refers. Accordingly, Lhoist North America will not be responsible or liable for any claims, losses or damages resulting from the use of or reliance upon or failure to use this information.*