Hydrated Lime (AFCO 8745)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision Date: 1/14/2018 Version: 2.0

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

Product Identifier

Product Form: Mixture

Product Name: Hydrated Lime (AFCO 8745)

Product Code: AFCO 8745

Intended Use of the Product

Use of the Substance/Mixture: Water treatment. For professional use only.

Name, Address, and Telephone of the Responsible Party

Company:

Alex C. Fergusson, LLC.
800 Development Avenue
Chambersburg, PA 17201
T: 800-345-1329
www.afcocare.com

Emergency Telephone Number

Emergency Number : 1-800-424-9300 (CHEMTREC)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Classification (GHS-US)

Skin Corr. 2 H315
Eye Dam. 1 H318
STOT SE 1 H335
Carc. 1A H350

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US) :

GHS05 GHS07 GHS08

Signal Word (GHS-US) : Danger.

Hazard Statements (GHS-US) : H315 - Causes skin irritation.
H318 - Causes serious eye damage.
H335 - May cause respiratory irritation.
H350 - May cause cancer through inhalation.

Precautionary Statements (GHS-US) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves, protective clothing, eye protection, face protection, respiratory protection.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position 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/physician.
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
P321 - Specific treatment (see Section 4).
P332+P313 - If skin irritation occurs, get medical advice/attention.

P362+P365 - 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 to local, regional, national, territorial, provincial, and international regulations.

Other Hazards

Other Hazards Not Contributing to the Classification: Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

Unknown Acute Toxicity (GHS-US) Not available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Mixture

Name	Product identifier	Common Name	% (w/w)
Calcium hydroxide	(CAS No) 1305-62-0	Hydrated lime	>85
Crystalline silica	(CAS No) 14808-60-7	Quarts	<1.0

Full text of H-phrases: see section 16.

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). Contact can cause irritation to eyes, skin, respiratory system, and gastrointestinal tract.

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. If breathing has stopped, give artificial respiration.

Skin Contact: Brush off or remove as much dry lime as possible. Wash exposed area with large amounts of water. If burned or if irritation persists, seek medical attention promptly.

Eye Contact: Immediately flush eyes with copius amounts of water or eye wash solution if water is unavailable. Pull back eyelid while flishing to ensure that all the hydrated lime dust has been washed outl. Seek medical attention promptly if the initial flushing of the eyes does not remove the irritant. Do not rub eyes.

Ingestion: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

Most Important Symptoms and Effects Both Acute and Delayed

General: Causes skin irriation. Causes serious eye damage. May cause respiratory irritation. May cause cancer through inhalation.

Inhalation: Inhalation may cause severe respiratory irritation. May cause cancer through inhalation.

Skin Contact: Causes skin irriation.

Eye Contact: Causes serious eye damage.

Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: Not available.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Dry chemical. CO_2.

Unsuitable Extinguishing Media: Do not use water. Do not use halogenated compounds, except that large amounts of water may be used to deluge small quantities of this product.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not combustible.

Explosion Hazard: Not available.

Reactivity: Not available.

Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Avoid generation of dust. Use breathing apparatus. Use extinguishing measures that are appropriate to local circumstances surrounding environment

Hazardous Combustion Products: Not applicable.

Reference to Other Sections: Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Ensure adequate ventilation. Keep dust levels to a minumum. Keep unprotected persons away. Avoid contact with skin, eyes, and clothing. Avoid inhalation of dust - ensure that the sufficient ventialtion or suitable respiratory equipment is used.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE) (See section 8).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Ventilate area.

Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

Methods and Material for Containment and Cleaning Up

Spill/Leak Procedures: Do NOT use water on bulk material spills. Use proper personal protective equipment (PPE).

Small Spills: Use dry methods to collect spilled materials. Avoid generating dust. Do not clean up with compressed air. Store collected materials in a dry, sealed plastic or non-aluminium metal containers. Residue on surfaces may be washed with water.

Large Spills: Use dry methods to collect spilled materials. Avoid generating dust. Evacuate area downwind of clean-up operations to minimize dust exposure. Store collected materials in a dry, sealed plastic or non-aluminium metal containers.

For Containment: Minimize dust generation and prevent bulk release to sewers and waterways.

Methods for Cleaning Up: Residual amounts of material can be flushed with large amounts of water. Equipment can be washed with either a mild vinegar and water solution, or detergent and water.

Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

SECTION 7: HANDLING AND STORAGE

Handling: Keep in a tightly closed plastic or non-aluminium metal containers. Protect containers from physical damage. Avoid direct skin contact with the material. Avoid breathing any dust.

Storage: Store in a cool, dry, well-ventilated location. Do not store near acids or other incompatible materials. Keep away from moisture. Do not store or ship in aluminium containers. Hydrated lime is not flammable. However, it reacts vigorously with acids and may release heat sufficient to ignite combustible materials in specific instances. Hydrated lime is not considered to be an explosion hazard, although reaction with acids or other incompatible materials may rupture containers.

Specific End Use(s): Water treatment. For professional use only.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Calcium hydroxide (1305-62-0)		
USA ACGIH	ACGIH TWA (mg/m³)	5 mg/m³
USA OSHA	OSHA PEL (TWA) (mg/m³)	15 mg/m³ (total dust) 5 mg/m³ (respirable fraction)
USA NIOSH	NIOSH TWA (mg/m³)	5 mg/m³
Ontario	TWA (mg/m³)	5 mg/m³
Québec	TWAEV (mg/m³)	5 mg/m³
Crystalline silica (14808-60-7)		
USA ACGIH	ACGIH TWA (mg/m³)	10/(SiO_2%+2) mg/m³
USA OSHA	OSHA PEL (TWA) (mg/m³)	0.025 mg/m³ (respirable)
USA NIOSH	NIOSH TWA (mg/m³)	0.05 mg/m³ (respirable)
USA NIOSH	NIOSH IDLH (mg/m³)	50

Exposure Controls

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

Personal Protective Equipment: Protective goggles. Protective clothing. Gloves.

Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical goggles with side shields.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: Use NIOSH-approved air-purifying or supplied-air respirator where airborne concentrations of dust are expected to exceed exposure limits.

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

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	:	Solid
Appearance	:	White free flowing powder
Odor	:	Odorless
Odor Threshold	:	Not available
pH	:	12.4
Relative Evaporation Rate (butylacetate=1)	:	Not available
Melting Point	:	Decomposes at 580°C (1076°F)
Freezing Point	:	Not available
Boiling Point	:	Not available
Flash Point	:	None
Auto-ignition Temperature	:	None
Decomposition Temperature	:	See Melting Point
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
Bulk Density	:	25-35 lbs./ft^3
Specific Gravity	:	2.3 - 2.4 g/cm^3
Solubility	:	0.159 grams per 100 grams sat. sol. @ 25°C
Log Pow	:	Not available
Log Kow	:	Not available
Viscosity, Kinematic	:	Not available
Viscosity, Dynamic	:	Not available.
Explosion Data – Sensitivity to Mechanical Impact	:	Not available.
Explosion Data – Sensitivity to Static Discharge	:	Not available.

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Not available.

Chemical Stability: Chemically stable, but slowly reacts with CO_2 to form calcium carbonate.

Possibility of Hazardous Reactions: Polymerization does not occur.

Conditions to Avoid: Moisture. Incompatible materials.

Incompatible Materials: Should not be mixed or stored with the following materials due to the potential for vigorous reaction and release of heat: Acids, Aluminium Organic Acid Anhydrides, Reactive Fluoridated Compounds, Nitro-Reactive Brominate Compounds, Reactive Phosphorous Compounds, Reactive Powdered Metals, Interhalogenated Compounds.

Hazardous Decomposition Products: Does not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity: Not classified.

LD50 and LC50 Data

Hydrated Lime (AFCO 8745)	
LD50 Oral Rat	7340 mg/kg

Skin Corrosion/Irritation: Causes severe skin burns and eye damage. (**pH:** 12.4)

Serious Eye Damage/Irritation: Causes serious eye damage. (**pH:** 12.4)

Respiratory or Skin Sensitization: Not classified.

Germ Cell Mutagenicity: Not classified.

Teratogenicity: Not available.

Carcinogenicity: Hydrated lime is not listed by MSHA, OSHA, or IARC as a carcinogen. However, this product may contain trace amoutns of crystalline silica in the form of quartz or crystobalite, which has been classified by IARC as a Group 1 carcinogen in humans when inhaled. Inhalation of silica can also cause a chronic lung disorder, silicosis.

Specific Target Organ Toxicity (Repeated Exposure): Not classified.

Reproductive Toxicity: Not classified.

Specific Target Organ Toxicity (Single Exposure): May cause severe resipratory irriation.

Aspiration Hazard: Not classified.

Symptoms/Injuries After Inhalation: Inhalation may cause respiratory irritation. May cause cacncer.

Symptoms/Injuries After Skin Contact: Causes serious skin irritation.

Symptoms/Injuries After Eye Contact: Causes serious eye damage.

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Calcium hydroxide (1305-62-0)	
LD50 Oral Rat	7340 mg/kg

SECTION 12: ECOLOGICAL INFORMATION

Toxicity Ecotoxicity: Expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems in high concentrations (>1g/L) due to high pH.

Calcium hydroxide (1310-73-2)	
LC50 Fish 1	356 mg/l (Exposure time: 96 h - Species: Poecilia reticulata)

Persistence and Degradability

Hydrated Lime (AFCO 8745)	
Persistence and Degradability	Not established.

Bioaccumulative Potential

Hydrated Lime (AFCO 8745)	
Bioaccumulative Potential	Shows no bioaccumulation effect or food chain concentration toxicity. High pH values will rapidly decrease over time as a result of recarbonation.

Mobility in Soil This material may be used in soil stabilization or remediation and will show very little mobility in soils.

Other Adverse Effects **Other Information:** Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

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

Ecology – Waste Materials: This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

SECTION 14: TRANSPORT INFORMATION

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

US Federal Regulations

Hydrated Lime (AFCO 8745)
All chemical ingredients are listed on the United States TSCA (Toxic Substances Control Act) inventory

US State Regulations: Not available.

Canadian Regulations

Hydrated Lime (AFCO 8687)
Listed on the Canadian DSL (Domestic Substances List) inventory.

SECTION 16: OTHER INFORMATION

Revision date : 1/24/2019

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

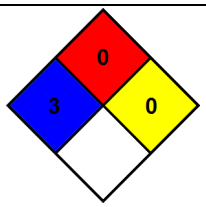
GHS Full Text Phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Skin Corr. 1	Skin corrosion/irritation Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H335	May cause respiratory irritation

NFPA Health Hazard : 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.

NFPA Fire Hazard : 0 - Materials that will not burn.

NFPA Reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given.

Flammability : 0 - Minimal Hazard.

Physical : 0 - Minimal Hazard.

Party Responsible for the Preparation of This Document

Alex C. Fergusson, LLC.
800 Development Avenue
Chambersburg, PA 17201
T: 800-345-1329

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

NA GHS SDS 2015 (U.S., Can., Mex.)