August 23, 2017

Colorado Division of Reclamation, Mining & Safety Attn: Mr. Elliott Russell
1313 Sherman St., Room 215
Denver, CO 80203

RE: COOT SH 67 Resurfacing Project-Lime Storage

Mr. Russell,

Please accept this letter as Gillette Sand and Gravels request to let CDOT's subcontractor to store containerized lime within the permitted mining boundary for use in the State Highway 67 resurfacing project. The period of the operations will be from August 28th September 15th. I have attached the following for you review and consideration:

1. Letter outlines type of containers used, secondary containment and the general operation of lime slaking.
2. LHoist Material Safety Data Sheet.

I respectfully request that you, upon your review of the attached materials, contact me your determination regarding the proposed temporary containerized lime storage for project. If you should have any questions or concerns regarding this request please do not hesitate to contact me.

Ute Pass
Concrete-sand & Gravel, Inc.
Gillette Sand and Gravel, Inc.
20575 Highway 24
Woodland Park, co 80863
Office-(719) 687-3111
Fax(719) 687-3156

Re: Lime/MSDS- Coughlin Job No. 17-46; CDOT 21254 STA067A-039 – SH67 Cripple Creek to Divide

The Lime Slaking operation consists of 2 each 20,000 gallon Slaking Tanks. Water is added 17000 gallons to each tank then 25 tons of quicklime is added and mixed together to create lime slurry or hydrated lime. From there the lime slurry is loaded in to tankers and hauled to the recycling equipment on SH 67 then injected in to the recycled material. Quicklime is not classified as a hazardous material by the US DOT (Section 14 – page 4 of 5). The attached MSDS is from Lhoist - the supplier of the lime. The MSDS provides a detailed explanation and review of the quicklime and should answer most questions. Secondary Spill containment will be accomplished by building a berm around the lime slaking operation. Any spill will be immediately clean up. Please let me know if you need anything further. Thanks.

Sincerely,

Darren Coughlin
CEO Coughlin Company I Inc.

Gmail by Google

Russell - DNR, Elliott <elliott.russell@state.co.us>

Revision to permit

Ute Pass Concrete-Sand & Gravel <utesng@yahoo.com> Thu, Aug 24, 2017 at 2:48 PM
Reply-To: Ute Pass Concrete-Sand & Gravel <utesng@yahoo.com>
To: "elliott.russell@state.co.us" <elliott.russell@state.co.us>

8/24/2017

Mr. Russell
We are requesting a revision or an amendment to our permit # M1992-00 for our Gillette Pit Located near Victor Colorado. Please see attached request letter and letter from lessee about lime operation and MSDS for the lime. Please advise what action need to be taken.
Thank you for your help in this matter.

Chris and Sue Pyles

Please see attached files below

Thank you, Ute Pass Concrete-Sand & Gravel Inc. Phone 719-687-3111 Fax 719-687-3156

2 attachments

Letter to DRMS from Gillette SNG (1).docx
21K

filename-1.pdf
318K

Coughlin Company I, Inc.
809 East Commerce Drive ~ St. George, Utah 84790
Phone 435-634-1266 ~ Fax 435-674-5119

Re: Lime/MSDS- Coughlin Job No. 17-46; CDOT 21254 STA067A-039 – SH67 Cripple Creek to Divide

The Lime Slaking operation consists of 2 each 20,000 gallon Slaking Tanks. Water is added 17000 gallons to each tank then 25 tons of quicklime is added and mixed together to create lime slurry or hydrated lime. From there the lime slurry is loaded in to tankers and hauled to the recycling equipment on SH 67 then injected in to the recycled material. Quicklime is not classified as a hazardous material by the US DOT (Section 14 – page 4 of 5). The attached MSDS is from Lhoist - the supplier of the lime. The MSDS provides a detailed explanation and review of the quicklime and should answer most questions. Secondary Spill containment will be accomplished by building a berm around the lime slaking operation. Any spill will be immediately clean up. Please let me know if you need anything further. Thanks.

Sincerely,

Darren Coughlin
CEO Coughlin Company I Inc.

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: High Calcium Quicklime (all sizes)

Synonym/s: Lime; Hi-Cal Quicklime; Calcium Oxide; Burnt Lime; QL

Chemical Name: Calcium Oxide **Chemical Formula:** CaO

Product Use/s: Steel, Pulp/Paper, Water treatment, pH adjustment, FGT, Construction

Manufacturer:	US Operations:	Canadian Operations:
	Lhoist North America 3700 Hulen St. Fort Worth, TX 76107 817-732-8164	Lhoist North America of Canada, Inc. 20303-102B Ave. Langley, BC V1M 3H1 604-888-4333

Emergency Phone: Chemtrec 1-800-424-9300

SECTION 2: HAZARDS IDENTIFICATION

Emergency Overview: Quicklime is an odorless, white or grayish-white material, that ranges from pebble to a granular powder. Contact can cause irritation to eyes, skin, respiratory system, and gastrointestinal tract. Quicklime reacts vigorously with water, releasing heat which may ignite combustible materials in specific instances.

Hazard Pictograms:

Potential Health Effects

Eyes: Contact can cause severe irritation or burning of eyes, including permanent damage.

Skin: Contact can cause severe irritation or burning of skin, especially in the presence of moisture.

Ingestion: This product can cause severe irritation or burning of gastrointestinal tract if swallowed.

Inhalation: This product can cause severe irritation of the respiratory system. Long-term exposure may cause permanent damage. Quicklime is not listed by MSHA, OSHA, or IARC as a carcinogen. However, this product may contain trace amounts of crystalline silica in the form of quartz or crystobalite, which has been classified by IARC as a Group I carcinogen to humans when inhaled. Inhalation of silica can also cause a chronic lung disorder, silicosis.

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

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	Chemical Formula	Common Name	Conc. (%)	CAS
Calcium Oxide	CaO	Quicklime	> 90	1305-78-8
Magnesium Oxide	MgO	Periclase	< 5	1309-48-4
Calcium Carbonate	$CaCO_3$	Limestone	< 3	1317-65-3
Crystalline Silica	SiO2	Quartz	< 2	14808-60-7

(Crystalline Silica is reported as total silica and not just the respirable fraction)

SECTION 4: FIRST AID MEASURES

Eyes:	Immediately flush eyes with generous amounts of water or eye wash solution if water is unavailable. Pull back eyelid while flushing to ensure that all lime dust has been washed out. Seek medical attention promptly if the initial flushing of the eyes does not remove the irritant. Do not rub eyes.
Skin:	Brush off or remove as much dry lime as possible. Wash exposed area with large amounts of water. If burned seriously or if irritation persists, seek medical attention promptly.
Inhalation:	Move victim to fresh air. Seek medical attention. If breathing has stopped, give artificial respiration.
Ingestion:	Do not induce vomiting. Seek medical attention immediately. Never give anything by mouth unless instructed to do so by medical personnel.
Medical Conditions Aggravated by Exposure:	Contact may aggravate disorders of the eyes, skin, gastrointestinal tract, and respiratory system.

SECTION 5: FIREFIGHTING MEASURES

Fire Hazards:	Quicklime is not combustible or flammable. However, quicklime reacts vigorously with water, and may release heat sufficient to ignite combustible materials in specific instances. Quicklime is not considered to be an explosion hazard, although reaction with water or other incompatible materials, such as acids, may rupture containers.
Suitable Extinguishing Media:	Use dry chemical or CO_2 fire extinguisher to extinguish the surrounding fire.
Unsuitable Extinguishing Media:	Do not use water, unless it is added in excess to flood the fire.
Fire Fighting Instructions:	Keep personnel away from and upwind of fire. Avoid skin contact or inhalation of dust. Wear full fire-fighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).
Hazardous Combustion Products:	Not applicable

SECTION 6: ACCIDENTAL RELEASE MEASURES

Spill / Leak Procedures:	**Do Not** use water on bulk material spills. Lime reacts vigorously with water, releasing heat. Use proper protective equipment.
Small Spills:	Use dry methods to collect spilled materials. Avoid generating dust. Do not clean up with compressed air. Store collected materials in dry, sealed plastic or non-aluminum metal containers. Residue on surfaces may be water washed.
Large Spills:	Use dry methods to collect spilled materials. Evacuate area downwind of clean-up operations to minimize dust exposure. Store spilled materials in dry, sealed plastic or non-aluminum metal containers.
Containment:	Minimize dust generation and prevent bulk release to sewers or waterways.
Clean-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.

SECTION 7: HANDLING AND STORAGE

Handling:	Keep in tightly closed plastic or non-aluminum metal containers. Protect containers from physical damage. Avoid direct skin contact with the material. Avoid breathing any dust.
Storage:	Store in a cool, dry, and well-ventilated location. Do not store near acids or other

incompatible materials. Keep away from moisture. Do not store or ship in aluminum containers.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Ingredient	OSHA PEL, TWA 8/40h (mg/m3)	ACGIH TLV, TWA 8/40h (mg/m3)	NIOSH REL, TWA 8/40h (mg/m3)	NIOSH IDLH (mg/m3)
Calcium Oxide, CaO	5	2	2	25
Magnesium Oxide, MgO	10	10	n/a	n/a
Calcium Carbonate, $CaCO_3$	15 (total dust) 5 (respirable)	10	10 (total dust) 5 (respirable)	n/a
Crystalline Silica, SiO_2	10/(SiO2% + 2) (respirable)	0.025 (respirable)	0.05 (respirable)	50

Engineering Controls: Provide ventilation adequate to maintain PELs.

Respiratory Protection: Use NIOSH/MSHA approved respirators if airborne concentration exceeds PELs.

Skin Protection: Use appropriate gloves and footwear to prevent skin contact and the potential for burns. Clothing should fully cover arms and legs. Should lime get inside clothing or gloves, remove the clothing and the lime promptly.

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

Other: Eye wash fountain/stations and emergency showers should be available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White or grayish-white lumps or powder	**Odor:** Odorless	**Physical State:** Solid
Melting Point (°C/°F): 2570 / 4658	**Boiling Point (°C/°F):** n/a	**Bulk Density:** 58-67 lbs/ ft3
Specific Gravity (Apparent) g/cc: 1.6-2.8	(True) g/cc: 3.0 - 3.4	
Vapor Pressure (mm Hg): n/a	**Vapor Density:** n/a	**Evaporation Rate:** n/a
pH (25°C/77°F): 12.4	**Solubility in Water:** Reacts with water to produce $Ca(OH)_2$ and large amounts of heat. Solubility is 0.8 g/L at 25 °C	

SECTION 10: STABILITY AND REACTIVITY

Stability: Chemically stable, but reacts vigorously with water to form calcium hydroxide, while generating heat. Quicklime also reacts with carbon dioxide to form calcium carbonate. See also Incompatibility below.

Hazardous Decomposition/ Products: Does not occur

Hazardous Polymerization: Does not occur

Incompatibility/ Conditions to Avoid: Quicklime should not be mixed or stored with the following materials, due to the potential for vigorous reaction and release of heat:

Water (unless in a controlled process)	Organic Acid Anhydrides
Acids (unless in a controlled process)	Nitro-Organic Compounds

Reactive Fluoridated Compounds	Reactive Phosphorous Compounds
Reactive Brominated Compounds	Interhalogenated Compounds
Reactive Powdered Metals	

SECTION 11: TOXICOLOGICAL INFORMATION

No LD50/LC50 have been identified for this product's components. Quicklime is not listed by MSHA, OSHA, or IARC as a carcinogen, but this product may contain trace amounts of crystalline silica, which has been classified by IARC as carcinogenic to humans when inhaled in the form of quartz or crystobalite.

Inhalation, skin and eye contact are the most likely routes of exposure. This material is irritating to the skin and severely irritating to the eyes.

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 (> 1 g/L).

Environmental Fate: This material shows no bioaccumulation effect or food chain concentration toxicity. High pH values will rapidly decrease over time as a result of recarbonation. This material may be used in soil stabilization or remediation and will show very little mobility in soils.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of in accordance with all applicable federal, state, and local environmental regulations. If this product as supplied, and unmixed, becomes a waste, it will not meet the criteria of a hazardous waste as defined under the U.S. Resource Conservation and Recovery Act (RCRA).

SECTION 14: TRANSPORTATION INFORMATION

Quicklime is not classified as a hazardous material by the US DOT and is not regulated by the Transportation of Dangerous Goods (TDG) when shipped by means other than air.

UN Number: UN 1910

UN Proper Shipping Name: Calcium oxide

Transport Hazard Class: Class 8, Corrosive

Packing Group III

Environmental Hazards: None

When being transported by air, quicklime is classified in the Department of Transportation (DOT) regulations as a hazardous material. (49 CFR 172.101). For passenger aircraft, the maximum net quantity allowed per container is 25 kg (please refer to IATA packing instruction number 860 for more information). For cargo aircraft, the maximum net quantity allowed per container is 100 kg (see IATA packing instruction number 864). For quantities greater than 25 kg up to and including 100 kg, the container shall be labeled with "CARGO AIRCRAFT ONLY." Because express carriers (i.e., Federal Express, Airborne Express, and United Parcel Service) ship by air, quicklime presented to these carriers for shipment must be packaged, marked, and labeled in accordance with IATA requirements, and must be accompanied by the appropriate shipping documentation. Only personnel trained and certified under applicable DOT Hazardous Materials Regulations (contained in Title 49 of the Code of Federal Regulations) may prepare any quicklime product for air transport.

SECTION 15: REGULATORY INFORMATION

U.S. EPA Regulations:

RCRA Hazardous Waste Number (40 CFR 261.33): not listed
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
All chemical ingredients are listed on the US EPA TSCA Inventory List.

OSHA/MSHA Regulations:

Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A): 5mg/M^3 TWA-8
MSHA: not listed
OSHA Specifically Regulated Substance (29 CFR 1910): not listed

State Regulations:

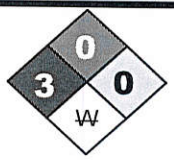
Consult state and local authorities for guidance. Components found in this product may contain trace amounts of inherent naturally occurring elements (such as, but not limited to arsenic and cadmium) that may be regulated under California Proposition 65 and other States regulations.

Canada:

WHMIS Classification: "D2A" Materials Causing Other Toxic Effects
WHMIS Classification: "E" Corrosive Materials (listed due to corrosive effect on aluminum)
Canada DSL: Listed

SECTION 16: OTHER INFORMATION

Prepared By: **Lhoist North America, Technical Services**
Date Prepared: **August 6, 2012** **Revision:** **2012-3**



NFPA Hazard Class:	Health: 3	Flammability: 0	Instability: 0	W
HMIS Hazard Class:	Health: 3*	Flammability: 0	Physical Hazard: 1	Personal Protection: E

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

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Gmail by Google

Russell - DNR, Elliott <elliott.russell@state.co.us>

Coughlin Lime operation and MSDS for Lime

Darren Coughlin <darren@coughlincompany.com> Thu, Aug 24, 2017 at 2:59 PM
To: Elliott.Russell@state.co.us

Elliott,
See attached letter with MSDS for the lime slaking operation going into Gillette Pit CO. Thank you very much for all your help!!!

--

Darren Coughlin

Coughlin Company I, Inc.

809 E Commerce Drive

St George, UT 84790

office (435)634-1266

cell (435)703-1268

fax (435)674-5119

"Its' Millin' Time"

Attachment of MSDS and Lime Operation.pdf
2301K