

# Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2024 and the Hazardous Products

Regulations (HPR) WHMIS 2022

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## **SECTION 1 Identification**

#### 1.1. Product identifier

Product form : Mixture

High Calcium Lime Kiln Dust Product name

Product code : Not available

#### 1.2. Other means of identification

Synonyms : Solid

Other means of identification : High Calcium Lime Kiln Dust, Lime Kiln Dust, LKD, Baghouse Lime, Cal-Ag.

#### 1.3. Recommended use and restrictions on use

Use of the substance/mixture : Neutralization, Stabilization, Absorption, Biosolids Stabilisation.

## 1.4. Supplier's details

Manufacturer

**GRAYMONT** 

#200-10991 Shellbridge Way

Richmond, BC, V6X 3C6 - Canada

T 1 604 207-4292; Toll free1 866 207-4292 - F 1 604 207-9014

www.graymont.com

**Distributor GRAYMONT** 

585 W Southridge Way

Sandy, Utah, 84070 - United States

T +1 801-262-3942

#### 1.5. Emergency phone number

: CHEMTREC 1 (800) 424-9300 **Emergency number** 

CHEMTREC International +1 (703) 527-3887 24 hr

#### **SECTION 2 Hazard identification**

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

#### **GHS** classification

Skin corrosion/irritation, Category 2

Serious eye damage/eye irritation, Category 1

Carcinogenicity, Category 1A

Specific target organ toxicity - Single exposure, Category 3, Respiratory tract irritation

Specific target organ toxicity, Repeated exposure, Category 1

# 2.2. Label elements

#### **GHS** labelling

Hazard pictograms (GHS)







Signal word (GHS)

Hazard statements (GHS) Causes skin irritation

> Causes serious eve damage May cause respiratory irritation May cause cancer (Inhalation).

Causes damage to organs (lungs) through prolonged or repeated exposure

Precautionary statements (GHS) Obtain special instructions before use.

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

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Do not breathe dust, fume, gas, mist, vapours, spray.

Wash hands, forearms and face thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

If exposed or concerned: Get medical advice/attention.

If on skin: Wash with plenty of water.

Take off contaminated clothing and wash it before reuse.

If skin irritation occurs: Get medical advice or attention.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

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 or doctor.

Call a poison center or doctor if you feel unwell.

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

#### 2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

#### 2.4. Hazards not otherwise classified

No additional information available

# 2.5. Unknown acute toxicity

Not applicable

## **SECTION 3 Composition/information on ingredients**

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%Weight
Limestone	Limestone Chalk / Limestone (A noncombustible solid characteristic of sedimentary rock. It consists primarily of calcium carbonate.) / Natural calcium carbonate / Marble / Calcium carbonate / Limestone (sedimentary rock) / Calcite / Limestone ground / Acetate, 4- methyl-2-propyl-2H-tetrahydropyran- 4-yl / Ground limestone	CAS-No.: 1317-65-3	50 – 75
Calcium oxide	Calcium oxide Lime / Quicklime / CALCIUM OXIDE / Quicklime (CaO) / Calcium oxide (CaO) / Lime (calcium oxide)	CAS-No.: 1305-78-8	0 – 55

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Name	Chemical name / Synonyms	Product identifier	%Weight
Magnesium oxide (MgO)	Magnesium oxide (MgO) Calcined magnesite / Magnesium oxide / MAGNESIUM OXIDE / Magnesia / C.I. 77711	CAS-No.: 1309-48-4	1 – 5
Calcium hydroxide	Calcium hydroxide Calcium dihydroxide / Calcium hydroxide (Ca(OH)2) / Hydrated lime / Lime, hydrated / CALCIUM HYDROXIDE / Slaked lime	CAS-No.: 1305-62-0	1 – 5
Quartz	Quartz Quartz (SiO2) / Silica, crystalline, quartz / Crystalline silica, quartz / .alphaQuartz / Silica, crystalline, .alphaquartz / QUARTZ / Crystalline silica in the form of quartz / Quartz, silica / Quartz (respirable fraction) / Silica dust / Silica, crystallinealpha.quartz / Silica, .alphaquartz / Silicon dioxide / Silica, quartz / Silica, crystalline / Quartz (crystalline silica) / Silica dust, crystalline / QUARTZ POWDER / Silica, crystalline (quartz)	CAS-No.: 14808-60-7	0.0001 – 1

Comments

: Crystalline silica has been found in some products at or above detection level 0.1%. Concentration is dependent upon limestone source.

Any concentration shown as a range is to protect confidentiality or is due to batch variation. If a generic chemical name is shown and/or the CAS number is not disclosed, the specific chemical identity has been withheld as a trade secret.

#### **SECTION 4 First-aid measures**

#### 4.1. Description of necessary first-aid measures

First-aid measures general

First-aid measures after inhalation

First-aid measures after skin contact

First-aid measures after eye contact

First-aid measures after ingestion

- : If exposed or concerned: Get medical advice/attention.
- If inhaled and 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.
- : If on skin: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If
- skin irritation occurs: Get medical advice/attention.

  : 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. Treat with Diphoterine if exposure occurs in Canada where it is permitted for use as an emergency rinsing solution.
  - Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

#### 4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation Symptoms/effects after skin contact

- : May cause irritation to the respiratory tract.
- : Causes skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin. May cause burns in the presence of moisture. Skin contact during hydration may slowly develop sufficient heat that may cause severe burns possibly resulting in permanent injury. Do not allow product to harden around any body part or allow continuous, prolonged contact with skin. Handling can cause dry skin.

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Symptoms/effects after ingestion

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2024 and the Hazardous Products Regulations (HPR) WHMIS 2022

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.

: May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and

diarrhea.

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

## 4.3. Indication of immediate medical attention and special treatment needed, 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 (and unsuitable) extinguishing media

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

Unsuitable extinguishing media : Do not use water jet.

#### 5.2. Specific hazards arising from the chemical

Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon. Irritating vapours.

#### 5.3. 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.

#### For non-emergency personnel

No additional information available

For emergency responders

Environmental precautions : Prevent entry to sewers and public waters.

# 6.2. Methods and materials for containment and cleaning up

For containment : Contain spill, then place in a suitable container. Do not flush to sewer or allow to enter

waterways. Use appropriate Personal Protective Equipment (PPE).

Methods for cleaning up : Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste

container. Dispose of via a licensed waste disposal contractor. . Provide ventilation.

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. Avoid contact with skin and eyes. Do not breathe dust. Do not swallow. Wash hands, forearms and face thoroughly after handling. Handle and open container with care. When using do not eat, drink or smoke. Use only outdoors or in a well-ventilated area. Avoid generating dust. The use of compressed air for cleaning clothing, equipment, etc, is not recommended. Good housekeeping is important to prevent accumulation of dust. Wear appropriate PPE (see Section 8)

Hygiene measures

: Wash contaminated clothing before reuse. Always wash hands after handling the product.

## 7.2. Conditions for safe storage, including incompatibilities

Storage conditions

: Keep out of the reach of children. Keep container tightly closed. Store locked up. Store in a well-ventilated place. Store in dust-tight, dry, labelled containers. Avoid any dust buildup by frequent cleaning and suitable construction of the storage area.

## **SECTION 8 Exposure controls/personal protection**

## 8.1. Control parameters

High Calcium Lime Kiln Dust		
No additional information available		
Limestone (1317-65-3)		
Canada (Alberta) - Occupational Exposure Limits		
OEL TWA	10 mg/m³	
Canada (Quebec) - Occupational Exposure Limits		
VEMP (OEL TWA)	10 mg/m³ (Limestone, containing no Asbestos and <1% Crystalline silica-total dust)	
Canada (British Columbia) - Occupational Exposure	e Limits	
OEL TWA	10 mg/m³ (total dust) 3 mg/m³ (respirable fraction)	
OEL STEL	20 mg/m³ (total)	
Canada (Saskatchewan) - Occupational Exposure L	imits	
DEL TWA 10 mg/m³		
OEL STEL	20 mg/m³	
USA - OSHA - Occupational Exposure Limits		
OSHA PEL TWA [1]	15 mg/m³ (total dust) 5 mg/m³ (respirable fraction)	
USA - NIOSH - Occupational Exposure Limits		
NIOSH REL TWA	10 mg/m³ (total dust) 5 mg/m³ (respirable dust)	
Calcium oxide (1305-78-8)		
Canada (Alberta) - Occupational Exposure Limits		
OEL TWA	2 mg/m³	

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Colsium avida (4205 72.0)			
Calcium oxide (1305-78-8)			
Canada (Quebec) - Occupational Exposure Limits			
VEMP (OEL TWA)	2 mg/m³		
Canada (British Columbia) - Occupational Exposure			
OEL TWA	2 mg/m³		
Canada (Ontario) - Occupational Exposure Limits			
OEL TWA	2 mg/m³		
Canada (Saskatchewan) - Occupational Exposure L	imits		
OEL TWA	2 mg/m³		
OEL STEL	4 mg/m³		
USA - ACGIH - Occupational Exposure Limits			
Local name	Calcium oxide		
ACGIH OEL TWA	2 mg/m³		
Remark (ACGIH)	TLV® Basis: URT irr		
Regulatory reference	ACGIH 2020		
USA - OSHA - Occupational Exposure Limits			
Local name	Calcium oxide		
OSHA PEL TWA [1]	5 mg/m³		
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1		
USA - IDLH - Occupational Exposure Limits			
IDLH	25 mg/m³		
USA - NIOSH - Occupational Exposure Limits			
NIOSH REL TWA	2 mg/m³		
USA - MSHA - Occupational Exposure Limits			
MSHA PEL TWA 8/40 h	2 mg/m³		
Magnesium oxide (MgO) (1309-48-4)			
Canada (Alberta) - Valeurs limites d'exposition professionnelle			
OEL TWA	10 mg/m³ (fume)		
Canada (Québec) - Valeurs limites d'exposition professionnelle			
VEMP (OEL TWA)	10 mg/m³ (inhalable dust)		
Canada (Colombie-Britannique) - Valeurs limites d'exposition professionnelle			
OEL TWA	10 mg/m³ (fume, inhalable) 3 mg/m³ (respirable dust and fume)		
OEL STEL	10 mg/m³ (respirable dust and fume)		
Canada (Ontario) - Valeurs limites d'exposition professionnelle			
OEL TWA 10 mg/m³ (inhalable particulate matter)			
Canada (Saskatchewan) - Valeurs limites d'exposition professionnelle			
OEL TWA	10 mg/m³ (inhalable fraction)		
OEL STEL	20 mg/m³ (inhalable fraction)		

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Magnesium oxide (MgO) (1309-48-4)		
USA - ACGIH - Occupational Exposure Limits		
ACGIH OEL TWA	10 mg/m³ (inhalable particulate matter)	
ACGIH chemical category	Not Classifiable as a Human Carcinogen	
USA - OSHA - Occupational Exposure Limits		
OSHA PEL TWA [1]	15 mg/m³ (fume, total particulate)	
USA - IDLH - Occupational Exposure Limits		
IDLH	750 mg/m³ (fume)	
USA - MSHA - Occupational Exposure Limits		
MSHA PEL TWA 8/40 h	10 mg/m³ (inhalable particulate matter)	
Calcium hydroxide (1305-62-0)		
Canada (Alberta) - Occupational Exposure Limits		
OEL TWA	5 mg/m³	
Canada (Quebec) - Occupational Exposure Limits		
VEMP (OEL TWA)	5 mg/m³	
Canada (British Columbia) - Occupational Exposure	e Limits	
OEL TWA	5 mg/m³	
Canada (Ontario) - Occupational Exposure Limits		
OEL TWA	5 mg/m³	
Canada (Saskatchewan) - Occupational Exposure L	imits	
OEL TWA	5 mg/m³	
OEL STEL	10 mg/m³	
USA - ACGIH - Occupational Exposure Limits		
ACGIH OEL TWA	5 mg/m³	
USA - OSHA - Occupational Exposure Limits		
OSHA PEL TWA [1]	15 mg/m³ (total dust)	
	5 mg/m³ (respirable fraction)	
USA - NIOSH - Occupational Exposure Limits		
NIOSH REL TWA	5 mg/m³	
USA - MSHA - Occupational Exposure Limits		
MSHA PEL TWA 8/40 h	5 mg/m³	
Quartz (14808-60-7)		
Canada (Alberta) - Occupational Exposure Limits		
Local name	Silica-Crystalline: Quartz	
OEL TWA	0.025 mg/m³ (respirable particulate)	
Notations and remarks	Carcinogenicity A2	
Regulatory reference	Alberta Regulation 191/2021	
Canada (Quebec) - Occupational Exposure Limits		
VEMP (OEL TWA)	0.1 mg/m³ (respirable dust)	

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Quartz (14808-60-7)		
Canada (British Columbia) - Occupational Exposure Limits		
Local name	Silica, Crystalline - alpha quartz	
OEL TWA	0.025 mg/m³ (respirable)	
Notations and remarks	ACGIH Carcinogenicity category A2; IARC group 1 carcinogen	
Regulatory reference	OHS Guidelines Part 5: Chemical Agents and Biological Agents (WorkSafe BC)	
Canada (Ontario) - Occupational Exposure Limits		
OEL TWA	0.1 mg/m³ (designated substances regulation-respirable fraction (Silica, crystalline)	
Canada (Saskatchewan) - Occupational Exposure L	imits	
OEL TWA	0.05 mg/m³ (Trydimite removed-respirable fraction (Silica - crystalline (Trydimite removed))	
USA - ACGIH - Occupational Exposure Limits		
Local name	Silica crystaline - quartz	
ACGIH OEL TWA	0.025 mg/m³ (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	
USA - OSHA - Occupational Exposure Limits		
Local name	Quartz (Total Dust) (Silica: Crystalline)	
OSHA PEL TWA [1]	50 μg/m³ (Respirable crystalline silica)	
Remark (OSHA)	Table Z-3. For OSHA PEL (TWA) use formula: (30 mg/m3 / (%SiO2+2)) for mg/m3. CAS No. source: eCFR Table Z-1.	
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-3 Mineral Dusts	
USA - IDLH - Occupational Exposure Limits		
IDLH	50 mg/m³ (respirable dust)	
USA - NIOSH - Occupational Exposure Limits		
NIOSH REL TWA	0.05 mg/m³ (respirable dust)	
USA - MSHA - Occupational Exposure Limits		
MSHA PEL TWA 8/40 h	30 mg/m³ / (%SiO2) + 2 mg/m³ (Total dust) 10 mg/m³ / (%SiO2) + 2 mg/m³ (Respirable dust)	

## 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.

# 8.3. Individual protection measures, such as 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:

If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/ or face shield.

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#### 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. Basic physical and chemical properties

Physical state : Solid

Colour : Grayish White Odour : Earthy

Odour threshold : No data available pH : 12.45 at  $25^{\circ}$ C /  $77^{\circ}$ F

Melting point : 2570 – 2625 °C (4658 - 4757 °F)

Freezing point : No data available
Boiling point : 2850 °C / 5162 °F
Flash point : Not applicable
Relative evaporation rate (butylacetate=1) : Not applicable
Flammability (solid, gas) : Not applicable
Vapour pressure : Not applicable
Relative vapour density at 20°C/ 68 °F : Not applicable

Relative density : 2.4 - 3.4

Solubility : Water: 0.125 g/100ml at 20°C / 68 °F

Partition coefficient n-octanol/water : Not applicable
Auto-ignition temperature : Not applicable
Decomposition temperature : No data available
Viscosity, kinematic : Not applicable
Explosive limits : Not applicable
Particle characteristics : No data available

Calcium oxide	
Boiling point	2850 °C Atm. press.: 101325 Pa Decomposition: 'no'
Vapour pressure	0 hPa (at 20 °C)

Magnesium oxide (MgO)	
Boiling point	3600 °C (at 1000 hPa)
Vapour pressure	0 hPa (at 20 °C)

Calcium hydroxide	
Boiling point	2850 °C (with decomposition)
Auto-ignition temperature	(not flammable)
Vapour pressure	0 hPa (at 20 °C)

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Quartz	
Boiling point	2230 °C

#### 9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

## **SECTION 10 Stability and reactivity**

#### 10.1. Reactivity

Reacts violently with: Strong acids. Reacts with water to form Calcium Hydroxide. The heat generated when mixed with water or moist air is sufficient to ignite surrounding materials such as paper, wood or cloth.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

#### 10.4. Conditions to avoid

Incompatible materials.

#### 10.5. Incompatible materials

Acids. Water, humidity. Fluoride compounds. phosphorus pentoxide. Ethanol.

#### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

# **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	> 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure)	
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))	
LD50 dermal rabbit	> 5000 mg/kg bodyweight Animal: rabbit, Guideline: other:US Federal Register 38: 187, Part 1500, Section 41, 1973.	
LC50 inhalation rat	> 6.04 mg/l air Animal: rat, Guideline: OECD Guideline 436 (Acute Inhalation Toxicity: Acute Toxic Class Method)	
Magnesium oxide (MgO) (1309-48-4)		
LD50 oral rat	3870 mg/kg (Source: NLM_HSDB)	
Calcium hydroxide (1305-62-0)		
LD50 oral rat	> 2000 mg/kg (Source: ECHA)	

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Calcium hydroxide (1305-62-0)			
LD50 dermal rat	> 2500 mg/kg (Source: ECHA_API)		
LC50 inhalation rat	> 6.04 mg/l/4h		
Skin corrosion/irritation :	Causes skin irritation. pH: 12.45 at 25°C / 77 °F		
Calcium oxide (1305-78-8)			
pH	12.5 (saturated solution)		
Magnesium oxide (MgO) (1309-48-4)			
рН	10.3 (saturated aqueous solution)		
Calcium hydroxide (1305-62-0)			
рН	12.4 (at 25 °C (saturated solution)		
Serious eye damage/irritation :	Causes serious eye damage. pH: 12.45 at 25°C / 77 °F		
Calcium oxide (1305-78-8)			
рН	12.5 (saturated solution)		
Magnesium oxide (MgO) (1309-48-4)			
рН	10.3 (saturated aqueous solution)		
Calcium hydroxide (1305-62-0)			
рН	12.4 (at 25 °C (saturated solution)		
Germ cell mutagenicity :	Not classified. Not classified.		
	May cause cancer (Inhalation).		
Quartz (14808-60-7)			
IARC group	1 - Carcinogenic to humans		
National Toxicology Program (NTP) Status	Known Human Carcinogens		
In OSHA Hazard Communication Carcinogen list	Yes		
•	Not classified.  May cause respiratory irritation.		
Calcium oxide (1305-78-8)			
STOT-single exposure	May cause respiratory irritation.		
Calcium hydroxide (1305-62-0)			
STOT-single exposure	May cause respiratory irritation.		
STOT-repeated exposure : Causes damage to organs (lungs) through prolonged or repeated exposure.			
Limestone (1317-65-3)			
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.		
Calcium oxide (1305-78-8)			
LOAEL (oral, rat, 90 days)	300 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)		

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Calcium oxide (1305-78-8)	1000 mg//g badwysight Arimaly ret Cuidelines OFCD Cuideline 422 (Combined Described			
NOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)			
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	0.413 mg/l air Animal: rat, Animal sex: male, Guideline: OECD Guideline 412 (Subacute Inhalation Toxicity: 28-Day Study)			
Quartz (14808-60-7)				
Additional information	Prolonged exposure to respirable crystalline silica has been known to cause silicosis, a scarring of the lungs. This disease may be disabling as it reduces lung capacity. The risk of contracting silicosis and the severity of the disease is related to the amount of dust exposure and the length of time (usually years) of exposure.			
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.			
Aspiration hazard	: Not classified.			
High Calcium Lime Kiln Dust				
Viscosity, kinematic	Not applicable			
Limestone (1317-65-3)				
Viscosity, kinematic	No data available			
Calcium oxide (1305-78-8)				
Viscosity, kinematic	223.529 – 230.303 mm²/s			
Magnesium oxide (MgO) (1309-48-4)				
Viscosity, kinematic	No data available			
Calcium hydroxide (1305-62-0)				
Viscosity, kinematic	No data available			
Quartz (14808-60-7)				
Viscosity, kinematic	No data available			
Symptoms/effects after inhalation Symptoms/effects after skin contact	<ul> <li>May cause irritation to the respiratory tract.</li> <li>Causes skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin May cause burns in the presence of moisture. Skin contact during hydration may slowly develop sufficient heat that may cause severe burns possibly resulting in permanent injury. Do not allow product to harden around any body part or allow continuous, prolonged contact with skin. Handling can cause dry skin.</li> </ul>			
Symptoms/effects after eye contact Symptoms/effects after ingestion	<ul> <li>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.</li> <li>May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and</li> </ul>			
Chronic symptoms Other information	diarrhea.  : May cause cancer. Causes damage to organs through prolonged or repeated exposure.  : Likely routes of exposure: ingestion, inhalation, skin and eye.			

# **SECTION 12 Ecological information**

# 12.1. Ecotoxicity

: No known significant effects or critical hazards. Ecology - general

Hazardous to the aquatic environment, short-term : Not classified.

Hazardous to the aquatic environment, long-term : Not classified.

(chronic)

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Calcium oxide (1305-78-8)		
LC50 - Fish [1]	1070 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [static] Source: IUCLID)	
EC50 - Crustacea [1]	49.1 mg/l Test organisms (species): Daphnia magna	
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)	
EC50 96h - Algae [1]	1130.3 mg/l Test organisms (species): Navicula seminulum	
NOEC (chronic)	32 mg/l Test organisms (species): Crangon septemspinosa Duration: '14 d'	
NOEC chronic fish	100 mg/l Test organisms (species): other:Tilapia nilotica Duration: '46 d'	

# 12.2. Persistence and degradability

High Calcium Lime Kiln Dust		
Persistence and degradability	Not established.	
Limestone (1317-65-3)		
Persistence and degradability	Rapidly degradable	
Calcium oxide (1305-78-8)		
Persistence and degradability	Rapidly degradable	
Magnesium oxide (MgO) (1309-48-4)		
Persistence and degradability	Rapidly degradable	
Calcium hydroxide (1305-62-0)		
Persistence and degradability	Rapidly degradable	
Quartz (14808-60-7)		
Persistence and degradability	Rapidly degradable	

# 12.3. Bioaccumulative potential

High Calcium Lime Kiln Dust	
Partition coefficient n-octanol/water	Not applicable
Bioaccumulative potential	Not established.
Calcium oxide (1305-78-8)	
BCF - Fish [1]	(no bioaccumulation)
Calcium hydroxide (1305-62-0)	
BCF - Fish [1]	(no bioaccumulation)

# 12.4. Mobility in soil

No additional information available

## 12.5. Other adverse effects

Ozone : Not classified.

Fluorinated greenhouse gases : No

Other information : No other effects known.

## Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2024 and the Hazardous Products Regulations (HPR) WHMIS 2022

#### **SECTION 13 Disposal considerations**

Product/Packaging disposal recommendations

: Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

# **SECTION 14 Transport information**

In accordance with DOT / TDG / IMDG / IATA

## 14.1. UN Number

UN-No. (DOT) : Not regulated UN-No. (TDG) : Not regulated UN-No. (IMDG) : Not regulated UN-No. (IATA) : 1910

# 14.2. UN Proper Shipping Name

Proper Shipping Name (DOT) : Not regulated
Proper Shipping Name (TDG) : Not regulated
Proper Shipping Name (IMDG) : Not regulated
Proper Shipping Name (IATA) : Calcium oxide

## 14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : Not regulated

TDG

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

IMDG

Transport hazard class(es) (IMDG) : Not regulated

**IATA** 

Transport hazard class(es) (IATA) : 8
Danger labels (IATA) : 8



# 14.4. Packing group

Packing group (DOT) : Not regulated Packing group (TDG) : Not regulated Packing group (IMDG) : Not regulated Packing group (IATA) : III

# 14.5. Environmental hazards

Other information : No supplementary information available.

## 14.6. Transport in bulk

Not applicable

#### 14.7. Special precautions for user

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

# Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2024 and the Hazardous Products Regulations (HPR) WHMIS 2022

#### DOT

Not regulated

#### TDG

Not regulated

#### **IMDG**

Not regulated

#### **IATA**

No data available

# **SECTION 15 Regulatory information**

#### 15.1. Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

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

#### 15.3. State regulations



This product can expose you to Silica, respirable crystalline, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Component	State or local regulations
Limestone(1317-65-3)	U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) List; U.S Massachusetts - Right To Know List
Calcium oxide(1305-78-8)	U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) List; U.S Massachusetts - Right To Know List
Magnesium oxide (MgO)(1309-48-4)	U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) List; U.S Massachusetts - Right To Know List
Calcium hydroxide(1305-62-0)	U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) List; U.S Massachusetts - Right To Know List
Quartz(14808-60-7)	U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) List; U.S Massachusetts - Right To Know List

# **SECTION 16 Other Information**

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2024 and the Hazardous Products Regulations (HPR) WHMIS 2022

Revision date : 11/04/2025 Issue date : 10/18/2022 Other information : None.

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# Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2024 and the Hazardous Products Regulations (HPR) WHMIS 2022

Indication of changes:			
SDS	SDS update	Modified V2.0	
4	First aid measures	Modified V2.1	

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