

Safety Data Sheet (SDS)

The content and format of this SDS is accordant with Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013 (CLASS)

1. Identification of the hazardous chemical and of the supplier

Product name: GRAYMONT MALAYSIA HYDRATE

Recommended use of the chemical and restrictions on use: Used in building applications, water treatment and road stabilization. Restrictions on use: Do NOT use it in an application which may contaminate food or do harm to human health.

Manufacturer/Supplier: GRAYMONT (ABN 20 004 406 688)

Address: Level 9, 118 Mount St North Sydney, NSW 2060, Australia

Tel: 1800 931 063

Fax: --

Email: --

Emergency phone number (in Malaysia): 60 3 6207 4347 (English, Malaysian)

Available 24 hours a day / 7 days a week

Emergency phone number (Asia-Pacific countries outside Malaysia): 65 3158 1074 (English, Bengali, Cantonese, Indonesian, Hindi, Japanese, Korean, Malay, Sinhalese, Urdu, Tagalog, Thai, Vietnamese)

Available 24 hours a day / 7 days a week

2. Hazards identification

Malaysia classification:

Physical hazards:	Not classified
Health hazards:	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 2 (lung)
Environmental hazards:	Not classified

Signal Word: Danger

Pictogram:



Hazard Statements:

H315: Causes skin irritation.

H318: Causes serious eye damage.

H335: May cause respiratory irritation.

H350: May cause cancer.

H373: May cause damage to organs through prolonged or repeated exposure (lung).

Precautionary Statements:

- P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P260: Do not breathe dust/fume/gas/mist/vapours/spray.
P264: Wash hands thoroughly after handling.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves/eye protection/face protection.
P281: Use personal protective equipment as required.

Response Precautionary Statements:

- P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
P321: Specific treatment (Please see the specific measures for accident that included in the label, or go to hospital for treatment.)
P332 + P313: If skin irritation occurs: Get medical advice/attention.
P362: Take off contaminated clothing and wash before reuse.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310: Immediately call a POISON CENTER or doctor/physician.
P308 + P313: IF exposed or concerned: Get medical advice/attention.
P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312: Call a POISON CENTER or doctor/physician if you feel unwell.
P314: Get medical advice/attention if you feel unwell.

Storage precautionary statements:

- P403 + P233: Store in a well-ventilated place. Keep container tightly closed.
P405: Store locked up.

Disposal precautionary statements:

- P501: Dispose of contents/container according to relevant local and national regulations (It is recommended to use methods of neutralization to dispose of waste).

3. Composition/information on ingredients

Product description: substance (); preparation/mixture (√)

Ingredient (s)	CAS No.	EC No.	% by weight
Calcium hydroxide	1305-62-0	215-137-3	>95
Calcium Carbonate	471-34-1	207-439-9	<6
Crystalline Silica	14808-60-7	238-878-4	1-<2
Other minerals	Mixture	--	<1
Ingredients determined not to be hazardous	--	--	Balance

- 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.
- There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

4. First-aid measures

Persons using this product should consult a physician or other medical professional if an accident involving this product results in injury. Specific first-aid measures are as follows:

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin Contact: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

Eyes Contact: 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/physician.

Ingestion: Rinse mouth. Do not induce vomiting without doctor's instruction. Get medical advice/attention if you feel unwell.

Acute effect and delayed effect:

Acute effect: Causes skin irritation. Causes serious eye damage. May cause respiratory irritation.

Delayed effect: May cause cancer. May cause damage to organs through prolonged or repeated exposure (lung).

Personal protective equipment: Wear protective gloves/protective clothing/eye protection/face protection when necessary.

Indication of immediate medical attention and treatment needed, if necessary: Treat according to symptoms and exposure dose.

5. Fire-fighting measures

Suitable extinguishing media: Dry chemical, foam, carbon dioxide (CO₂) and dry sand.

Unsuitable extinguishing media: Do not use water.

Special hazards arising from the chemical: Non-combustible material. At 580°C calcium hydroxide decomposes and gives off corrosive fumes of calcium oxide (Decomposition Temperature: 580°C). Under fire conditions this product may emit toxic and/or irritating fumes and gases.

Fire Fighting Method:

Shut off air supply.

Extinguish fire from upwind and cool down containers by water spray.

Remove containers from fire area if it can be done without risk.

Deny unnecessary entry to the place around the fire.

Firefighters must wear self-contained breathing apparatus and full protective equipment.

Special actions for fire-fighters: Firefighters must wear self-contained breathing apparatus and full protective equipment.

Check whether the protective equipment is in good condition before use.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Use proper personal protective equipment as indicated in Section 8.

Environmental precautions: Keep cleaning run-offs out of municipal sewers and open bodies of water. Comply with local and national laws and regulations.

Methods and material for containment and cleaning up:

Cover with plastic sheet to prevent spreading.

Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

Avoid generating dust during collection and clean-up.

7. Handling and storage

Precautions for safe handling:

- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Do not breathe dust/fume/gas/mist/vapours/spray.
- Wash hands thoroughly after handling.
- Use only outdoors or in a well-ventilated area.
- Wear protective gloves/eye protection/face protection.
- Use personal protective equipment as required.

Conditions for safe storage, including any incompatibilities: Store in a cool, dry, well-ventilated area, out of direct sunlight and moisture. Store in suitable, labelled containers. Keep containers tightly closed. Ensure storage conditions comply with applicable local and national regulations.

Incompatible substances or mixtures: Strong oxidising agents, strong acids, ammonium salts and fluorine.

Packing material: No information available.

8. Exposure controls/personal protection

Occupational Exposure Limits:

Ingredients	Malaysia PELs	ACGIH TLV-TWA
Calcium hydroxide (CAS: 1305-62-0)	5 mg/m ³	5 mg/m ³
Calcium Carbonate (CAS: 471-34-1)	--	--
Crystalline Silica (CAS: 14808-60-7) ※	0.1 mg/m ³	0.025 mg/m ³

※: Crystalline silica is a Category 1A carcinogen.

※: TWA (Time Weighted Average): Defined as time-weighted average concentration limits for a normal 8-hour workday, with a total of 40 hours per week.

No biological limits allocated.

Engineering Controls:

- Use this product only in closed systems fully or with local exhaust ventilation.
- Install emergency eyewash and shower equipment in accordance with national regulations, and / or most recent ANSI Z358.1 requirements.
- Install washer eyes and safety showers near to the handling and storage area.

Personal Protective Equipment (for workers):

Protection of Hands: Wear gloves of impervious material. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Occupational protective gloves should conform to relevant regulations.



Protection of Eyes: Tight-fitting safety glasses with full face shield should be used. Eye protection should conform to relevant local and national regulations



Respiratory Protection: If engineering controls are not effective in controlling airborne concentrations below exposure standards, then approved respirators with replaceable high-efficiency particulate filters should be used. Refer to relevant local and national regulations for further information.



Protection of Body: Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.



General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.
 Wash hands before breaks and at the end of work.

9. Physical and chemical properties

General Information	
Form	Powder
Colour	Off-white
Odour	No data available
pH	12 (aqueous slurry)
Melting point/freezing point	Not Applicable (loses its water at 580°C to become calcium oxide).
Initial boiling point and boiling range	No data available
Flash Point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	This product is not classified as flammable solid
Upper/lower flammability or explosive limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Specific Gravity	2.08-2.34
Solubility(ies)	Slightly soluble in water. For Calcium hydroxide: 185 mg/100 cc (0°C)

	77 mg/100 cc (100°C)
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	580°C
Viscosity	No data available

10. Stability and reactivity

Reactivity and Chemical stability: This product is considered to be a non-reactive material under normal and anticipated storage and handling conditions.

Possibility of hazardous reactions: Reacts with incompatible materials.

Conditions to Avoid: Extremes of temperature, dust accumulation and direct sunlight. Moisture and wet conditions.

Incompatible materials: Strong oxidising agents, strong acids, ammonium salts and fluorine.

Hazardous decomposition products: Thermal decomposition may result in the release of toxic and/or irritating fumes and gases. At 580°C loses its water to become calcium corrosive fumes of calcium oxide.

11. Toxicological information

Product Toxicity Data:

Ingredient (s)	CAS No.	LD ₅₀ /LC ₅₀ (Median lethal dose)
Calcium hydroxide	1305-62-0	Acute toxicity (oral) LD ₅₀ : 7,340 mg/kg (rat) Data source: ECHA
Calcium Carbonate	471-34-1	Acute toxicity (oral) LD ₅₀ >2,000 mg/kg (rat) Data source: ECHA Acute toxicity (dermal) LD ₅₀ >2500 mg/kg (rat) Data source: ECHA
Crystalline Silica	14808-60-7	No data available
Other minerals	Mixture	No data available
Classification of the whole product:		Not classified.

Skin corrosion/irritation

Calcium hydroxide (CAS: 1305-62-0): Category 2 (Data source: ECHA)
 Classification of the whole product: Category 2

Serious eye damage/eye irritation

Calcium hydroxide (CAS: 1305-62-0): Category 1 (Data source: ECHA)
 Classification of the whole product: Category 1

Respiratory sensitizer

No classification for this product.

Skin sensitizer

No classification for this product.

Germ cell mutagenicity

No classification for this product.

Carcinogenicity

Crystalline Silica (CAS: 14808-60-7): Category 1A (Data source: IARC-1)
 Classification of the whole product: Category 1A

Reproductive Toxicity

No classification for this product.

Specific target organ toxicity, single exposure

Calcium hydroxide (CAS: 1305-62-0): Category 3 (Respiratory tract irritation) (Data source: ECHA)

Classification of the whole product: Category 3 (Respiratory tract irritation)

Specific target organ toxicity,

Crystalline Silica (CAS: 14808-60-7): Category 1 (lung) (Data source:

repeated exposure	ECHA) Classification of the whole product: Category 2 (lung)
Aspiration hazard	No classification for this product.
Effects on or via lactation	No classification for this product.
Ingestion	Ingestion of this product may irritate the gastric tract causing nausea and vomiting.
Inhalation	May cause respiratory irritation. Inhalation of product dust can cause irritation of the nose, throat, and respiratory system. Repeated exposure to respirable crystalline silica dust may lead to silicosis, or other serious delayed lung injury. The onset of silicosis is usually slow and lung damage may occur even when no symptoms or signs of ill-health have occurred. Silicosis can develop to a more serious degree even after exposure has ceased and may also lead to other diseases including heart disease and scleroderma. Exposure by inhalation may aggravate pre-existing upper respiratory and lung disorders such as bronchitis, emphysema, and asthma. Chronic exposure to this material may aggravate existing respiratory disorders and lung disorders such as bronchitis, emphysema, and asthma. Onset and progression are related to dust concentrations and duration of exposure.
Skin	Causes skin irritation. Skin contact can cause redness, itching, and swelling. Repeated exposure may cause skin dryness and cracking and may lead to dermatitis.
Eye	Causes serious eye damage. On eye contact this product will cause tearing, stinging, blurred vision, and redness. Reacts with moisture and protein in eye to form clumps of moist compound which are difficult to remove.

12. Ecological information

Ecotoxicity:

Calcium hydroxide (CAS: 1305-62-0):

96h- LC₅₀: 4,630 mg/L, fish (Pimephales promelas) (ECHA)

Calcium Carbonate (CAS: 471-34-1):

96h- LC₅₀ > 100 mg/L, fish (ECHA)

Classification of the whole product: Not classified.

Persistence and Degradability: No data available.

Bioaccumulative Potential: No data available.

Mobility in Soil: No data available.

Environmental Protection: Prevent this material from entering waterways, drains, and sewers.

13. Disposal considerations

Waste treatment methods:

It is recommended to use methods of neutralization to dispose of waste
Any disposal practice must be in compliance with country, local, state, and federal laws and regulations.
After contents are completely removed, dispose of its container at hazardous or special waste collection point.
Paste a label on the container indicating the possible hazards of the waste.

14. Transport Information

DOT/Air-Transportation- IATA/ICAO/Sea-Transportation-IMO/IMDG:

UN proper shipping name: Not applicable

Transport hazard class(es): Not applicable

UN number: Not applicable

Packing Group: Not applicable

Packing Group Symbol: Not applicable

Marine Pollutant (Yes/No): No

EMS NO.: Not applicable

Note:

Check whether the package is completed or sealed before transporting; make sure no damage of packages and prevent goods from falling down during transporting; the transport vehicle should be equipped with facilities for fire-fighting and accidental release handling; do NOT transport this product together with incompatible substances; stay away from fire and areas of high temperature during stopovers. Hydrated Lime should be stored and transported in a manner to prevent ingress or contact with water, strong oxidants, or acids and emission of dust.

15. Regulatory information

Malaysia:

Hazard Classification according to MS 1804:2008:

Physical hazards:	Not classified
Health hazards:	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 2 (lung)
Environmental hazards:	Not classified

Occupational Safety and Health Act 1994: As for safety use, control of major hazards, notification of accident and other relevant information, see specific regulations of this Act.

United States:

TSCA (Toxic Substance Control Act):

Ingredient (s)	CAS No.	TSCA Inventory
Calcium hydroxide	1305-62-0	Listed
Calcium Carbonate	471-34-1	Listed
Crystalline Silica	14808-60-7	Listed

Clean Water Act:

Chemical Name	Reportable Quantities	Hazardous Substances	Priority Pollutants	Toxic Pollutants
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

Carcinogenicity categories: Quartz [Silica Crystalline] (CAS: 14808-60-7): IARC-1.

EU:

(EC) 1272/2008 Annex VI Table 3.1:

Ingredient(s)	EC No. 1272/2008 Classification	
	CLASS. CODE	HAZARD CODE
Not applicable	Not applicable	Not applicable

Candidate List of Substances of very high concern (SVHC) according to ECHA: Not listed.

REACH Regulation Annex XVII Regulation List: Not listed.

REACH Regulation Annex XIV Authorization List: Not listed.

Chemical Safety Assessment: A Chemical Safety Assessment has not been carried out.

16. Other information

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References:

GHS SDS Instruction

The Malaysian Standard on Globally Harmonised System (GHS) for Classification and Labelling of Chemicals (MS 1804:2008)

Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013 (CLASS)

The Industry Code of Practice on Chemical Classification and Hazard Communication 2014 (ICOP)

Full description of some acronyms:

GHS-Globally Harmonized System of Classification and Labelling of Chemicals

CAS-Chemical Abstracts Service

EINECS-European Inventory of Existing Commercial Chemical Substances

IMO-International Maritime Organization

IMDG-International Maritime Dangerous Goods

IATA-International Air Transport Association

ICAO-International Civil Aviation Organization

TSCA-Toxic Substances Control Act

OSHA-Occupational Safety and Health Administration

ACGIH-American Conference of Governmental Industrial Hygienists

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*****The End*****