

Product Name: Calcium Carbonate- Lime stone

Calcium carbonate is one of the most widely used minerals today. It has many uses in a wide variety of industrial and commercial applications such as plastics, paints, adhesives, drilling fluids, glass manufacturing, soil and paper.

Calcium carbonate accounts for more than 4% of the earth's crust. As a result, the three calcium carbonate minerals vaterite, aragonite & calcite, are among the most important rock-forming minerals. Rocks are not the only calcium carbonate deposits in nature – almost all stretches of water and countless plants and animals contain huge amounts of calcium carbonate as well.

These natural resources are linked by the calcium carbonate cycle.

SECTION 1-PRODUCT AND COMPANY IDENTIFICATION

Classification / Type	Carbonate / Calcium Carbonate or limestone
Appearance	Off-white powder or lumps.
Molecular formula / Molecular Weight	CaCO ₃ / 100.09 gm/mole
CAS No.	471-34-1
Bulk Density	900 - 1750 kg/m ³ (according to grain size)
Packaging Detail	Bulk and jumbo bags (1-2.3) ton
PH value	8.0 - 9.0
Melting Point	825 °C
Boiling Point	Not available
Solubility	Insoluble in water & Soluble in H ₂ O: HCl (13:2) gives (66 mg/ml).

Company contact:

Company name	Saudi lime industries company (SAUDILIME)
Location	KSA, Riyadh, 2 nd industrial city, Al-Kharj road.
Telephone	00966112651929
Website & E-mail	www.saudilime.com - info@saudilime.com

SECTION 2-COMPOSITION AND INFORMATION ON INGREDIENTS

Name	Calcium carbonate	Calcium oxide	Magnesium oxide	Silicon dioxide	Iron oxide	Aluminum oxide	Sulphur trioxide
Symbol	CaCO ₃	CaO Free	MgO	SiO ₂ &Insol.	Fe ₂ O ₃	Al ₂ O ₃	SO ₃
% by weight	96.50 %	54.00%	1.00 %	1.50 %	0.35 %	0.40 %	0.35 %
Range	Min.	Min.	Max.	Max.	Max.	Max.	Max.
CAS No.	471-34-1	1305-78-8	1309-48-4	14808-60-7	1309-37-1	1344-28-1	7446-11-9

SECTION 3- HAZARDS IDENTIFICATION

Potential Acute Health Effects:

Hazardous in case of eye contact (irritant).

Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available.

MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available.

The substance may be toxic to kidneys. Repeated or prolonged exposure to the substance can produce target organs damage.

SECTION 4- FIRST AID MEASURES

Eye Contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.

Cold water may be used. WARM water MUST be used.

Get medical attention.

Skin Contact: Wash with soap and water.
Cover the irritated skin with an emollient.
Get medical attention if irritation develops.
Serious Skin Contact: Not available.

Inhalation: If inhaled, remove to fresh air.
If not breathing, give artificial respiration.
If breathing is difficult, give oxygen.
Get medical attention.

Serious Inhalation:
Not available.

Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel.
Never give anything by mouth to an unconscious person.
Loosen tight clothing such as a collar, tie, belt or waistband.
Get medical attention if symptoms appear.

Serious Ingestion:
Not available.

SECTION 5- FIRE FIGHTING MEASURES

Flammability of the Product: Non-flammable.

Auto-Ignition Temperature: Not applicable.

Flash Points: Not applicable.

Flammable Limits: Not applicable.

Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances: Not applicable.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available.

Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions: Not applicable.

Special Remarks on Fire Hazards: Will ignite and burn fiercely in contact with fluorine

Special Remarks on Explosion Hazards: When a mixture of calcium carbonate and magnesium is heated in a current of hydrogen, a violent explosion occurs.

SECTION 6- ACCIDENTAL RELEASE MEASURES

Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

SECTION 7- HANDLING AND STORAGE

Precautions:

Keep container dry.

Do not breathe dust.

Never add water to this product.

In case of insufficient ventilation, wear suitable respiratory equipment.

If you feel unwell, seek medical attention and show the label when possible.

Avoid contact with skin and eyes.

Keep away from incompatibles such as organic materials, acids, moisture.

Storage: Keep container tightly closed.

Keep container in a cool, well-ventilated area.

Do not store above 24°C (75.2°F).

SECTION 8- EXPOSURE CONTROLS/ PERSONAL PROTECTION

Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits.

If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection:

Splash goggles.
Lab coat. Dust respirator.
Be sure to use an approved/certified respirator or equivalent.
Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles, Full suit. Dust respirator, Boots & Gloves.
A self-contained breathing apparatus should be used to avoid inhalation of the product.
Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:

TWA: 10 (mg/m³) from ACGIH (TLV) [United States] Inhalation Total. TWA: 10
STEL: 20 (mg/m³) [Canada] Inhalation
Total. TWA: 5 (mg/m³) from OSHA (PEL) [United States] Inhalation Respirable.
TWA: 15 from OSHA (PEL) [United States]
Inhalation Total. Consult local authorities for acceptable exposure limits.

SECTION 9- PHYSICAL AND CHEMICAL PROPERTIES

Physical state and appearance: Solid. (Powdered solid.)

Odor: Odorless.

Taste: Chalky

Molecular Weight: 100.09 g/mole

Color: White.

pH (1% solution/water): Not available.

Boiling Point: Not available.

Melting Point: 825°C (1517°F)

Critical Temperature: Not available.

Specific Gravity: 2.8 (Water = 1)

Vapor Pressure: Not applicable.

Vapor Density: Not available.

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Co-eff.: Not available.

Ionicity (in Water): Not available.

Dispersion Properties: Not available.

Solubility:

Very slightly soluble in cold water. Soluble in dilute acid H₂O: HCl (13:2) gives (66 mg/ml).

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Insoluble in alcohol.

SECTION 10- STABILITY AND REACTIVITY DATA

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Incompatible Materials

Incompatibility with various substances: Reactive with oxidizing agents, acids.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity:

Hygroscopic.

Will ignite and burn fiercely in contact with fluorine.

Incompatible with acids, alum, ammonium salts, mercury + hydrogen, aluminum and magnesium

Special Remarks on Corrosively: Not available.

Polymerization: Will not occur.

SECTION 11- TOXICOLOGICAL INFORMATION

Routes of Entry: Inhalation. Ingestion.

Toxicity to Animals: Acute oral toxicity (LD50): 6450 mg/kg [Rat].

Chronic Effects on Humans: May cause damage to the following organs: kidneys.

Other Toxic Effects on Humans: Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects:

Skin: Causes skin irritation.

Eyes: Dust causes eye irritation.

Inhalation: Excessive inhalation causes respiratory tract and mucous membrane irritation.

Low hazard for usual industrial handling. Ingestion: Ingestion of large amounts may cause gastrointestinal tract disturbances with nausea and possibly constipation.

Expected to be a low hazard for usual industrial handling. Chronic Potential Health Effects: Chronic ingestion may affect kidneys, and may cause hypercalcemia with alkalosis.

SECTION 12- ECOLOGICAL INFORMATION

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short-term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The product itself and its products of degradation are not toxic.

Special Remarks on the Products of Biodegradation: Not available.

SECTION 13- DISPOSAL CONSIDERATIONS

Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

SECTION 14- TRANSPORT INFORMATION

Identification: Calcium Carbonate- bulk or jumbo bags.

Special Provisions for Transport: Not available.

SECTION 15- OTHER REGULATORY INFORMATION

Federal and State Regulations: TSCA 8(b) inventory: Calcium carbonate.

Other Regulations:

EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

1- Hazardous Material Identification System (HMIS) In USA:

Health Hazard: 2 - Fire Hazard: 0 - Reactivity: 0 - Personal Protection: E

2- National Fire Protection Association (NFPA) In USA:

Health: 1 - Flammability: 0 - Reactivity: 0

Protective Equipment:

- * Gloves, Synthetic apron Vapor and dust respirator.
- * Be sure to use an approved/certified respirator or equivalent.
- * Wear appropriate respirator when ventilation is inadequate & Splash goggles.

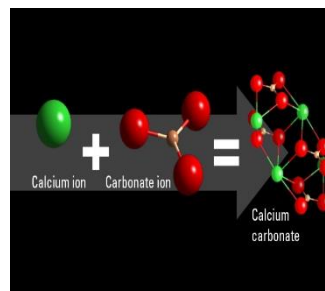
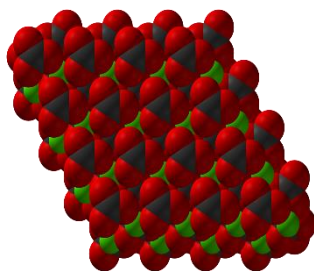
SECTION 16- OTHER INFORMATION

SAUDI LIME INDUSTRIES COMPANY (SAUDI LIME)

An industrial edifice making  an exceptional mark in adapting technology & a closed joint stock company founded by a group of businessmen in the Kingdom of Saudi Arabia and Kuwait with the participation of the Public Authority for Social Insurance in the Kingdom to form an integrated system for producing:

Calcium carbonate, Quick Lime, Hydrated Lime, Dolomite, Burnt dolomite, Dolomitic hydrated lime and Sand Lime Bricks.

All mentioned data is considering a common data.



Health	2
Fire	0
Reactivity	0
Personal Protection	E



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