

Product Name: Sand Lime Blocks & Bricks

Calcium silicate blocks are made of sand and lime and popularly known as sand lime bricks. These bricks are used for several purposes in construction industries such as ornamental works in buildings, masonry works etc.

SECTION 1-PRODUCT AND COMPANY IDENTIFICATION

Physical State: Solid

Color: white, pink or colored

Odor: None

Solubility in water: Insoluble

Flash point: Non flammable

Melting Point: >1000°C

Compressive strength on cross area: more than 150 kg/cm²

Stability: Stable, reactive with oxidizing agents, non-corrosive in presence of glass, polymerization will not occur.

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

Content: Crystalline Silica (Quartz SiO²) ,quick lime (CaO) & water (H₂O)

Average Product Specs:

		Blocks No. - 07			Bricks No. - 01		
1	Average Dimensions (cm)	L (cm)	W (cm)	H (cm)	L (cm)	W (cm)	H (cm)
		39	20	19.1	21.5	10	6.5
2	Gross Area (cm ²)	780			215		
3	Net Area (cm ²)	609.7					
4	Average Weight (gm)	22500			2495		
5	Density (gm/cm ³)	1.93			1.79		
6	Absorption %	13.1			12.7		
7	Load	1060 (KN) 108088.2 (Kg)			376 (KN) 38340.72 (Kg)		
8	Avg. compressive Strength on (CS=F/A)	ON Net Area 177.28 (Kg/cm ²) On Gross Area 138.57 (Kg/cm ²)			178.33 (Kg/cm ²)		
9	Fire Resistance Rating	More Than 4 hrs.			More Than 4 hrs.		

SECTION 3- HAZARDS IDENTIFICATION

- * Non-flammable- Avoid eye contact and breathing dust.
- ** Eye contact will cause irritation and breathing will cause coughing, sneezing or inflammation
- *** Fire-resistant and salinization and has isolated the proportion of heat and nontoxic.

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

- Handling requirements: No special handling requirements.
- Carry out risk assessment a suitable and sufficient risk assessment to ascertain the best method for handling the products.
- Gloves and safety shoes are more important for workers.

Storage conditions:

- Safe stacking recommendations such as flat land and 4 ballets are the maximum height.

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.

SECTION 9- PHYSICAL AND CHEMICAL PROPERTIES

	Blocks No. - 07	Bricks No. - 01
Avg. Weight (kg)	22.5	2.5
Density (gm/cm³)	1.93	1.79
Absorption %	13.1	12.7
Avg. compressive Strength on (CS=F/A)	ON Net Area 177.28 (Kg/cm ²) On Gross Area 138.57 (Kg/cm ²)	178.33 (Kg/cm ²)
Fire Resistance Rating (ASTM E-119)	More Than 4 hrs.	More Than 4 hrs.
Thermal conductivity	Nearly 0.64 W/(m-k)	
Thermal resistance	Nearly 0.314 m ² . k/w	
Heat transfer coefficient	Nearly 3.182 w/ m ² . k	

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: Sand lime Block & Bricks.

Truck: crane truck

Special Provisions for Transport: Not available.

SECTION 15- OTHER REGULATORY INFORMATION

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.

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