

1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Product Identifier	LIME
Other Means of Identification	Not applicable.
Recommended Use of Chemical and Restrictions on Use	This product is used as a weighting material and as a bridging-sealing agent to minimize invasion of filtrate and whole fluid to the formation during the drilling of oil and gas wells.
Supplier Details	Oren Hydrocarbon Middle East Fzco. P.O. Box 18159, Jebel Ali Free Zone (South) Dubai, UAE Tel: +971 4 8860497 Fax: +971 4 8860498
Emergency Phone Number	Tel: +971 4 8860497

2. HAZARDS IDENTIFICATION

Classification of the Substance/ Mixture	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
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SKIN CORROSION/IRRITATION – Category 2
EYE DAMAGE/IRRITATION – Category 2B

**Label Elements Including
Precautionary Statements**

Hazard Pictogram(s):



Signal Word:

Warning

Hazard statement(s): Causes serious eye irritation.

Precautionary statements:

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and clothing, eye protection, and face protection. Do not breathe dust. Use only outdoors or in well-ventilated areas. Wash hands, forearms, and face thoroughly after handling. Do not eat, drink, or smoke when using this product.

Response:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

Storage: Store locked up. Store in a well-ventilated place. Keep container tightly closed.

Disposal: Dispose of contents and container in accordance with local, state, and federal regulations.

Hazards Not Otherwise Classified: None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture: Mixture.

Component	CAS No.	Weight (%)
Calcium carbonate	471-34-1	60 – 100

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

4. FIRST AID MEASURES

First Aid Measures

Inhalation: Move to fresh air. Give oxygen or artificial respiration if required. If breathing difficulties or distress continues contact a physician.

Skin contact: Wash with soap and water. Remove contaminated clothing and launder before reuse. If irritation persists, or develops, obtain medical attention.

Eye contact: Rinse eyes with gently flowing warm water until particles are removed. If irritation persists, obtain medical attention.

Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

Most Important Symptoms/Effects, Acute and Delayed

Acute effects: No Specific data.

Delayed effects: No Specific data.

Indication of Immediate Medical Attention and Special Treatment Needed

Note to physician: Treat symptomatically.

Specific treatments: Specific treatment must be based on judgement of the physician in response to reactions of the patient.

Protection of first aiders: No action shall be taken involving any personal risk without suitable training. Ensure that medical personnel are aware of the materials involved and take precautions to protect themselves. First aid responders are advised to wear protective equipment as found in Section 8 of this safety data sheet.

5. FIREFIGHTING MEASURES

Extinguishing Media	<p>Suitable extinguishing media: Foam, dry powder, carbon dioxide (CO₂), water spray, sand.</p> <p>Extinguishing media which must not be used for safety reasons: Do not use a heavy water stream.</p>
Special Hazards Arising from the Substance or Mixture	No information available.
Special Protective Equipment and Precautions for Firefighters	Wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures	<p>Ensure adequate ventilation, especially in confined areas. Use personal protective equipment as required. See Section 8 of this safety data sheet for additional information.</p> <p>Environmental precautions: Prevent entry to sewers or public waters.</p>
Methods and Materials for Containment and Cleaning Up	Prevent further leakage or spillage if safe to do so. Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for Safe Handling	<p>Protective measures: This product contains quartz which may become airborne without a visible cloud. Avoid breathing dust. Wear protective equipment to prevent skin and eye contact. Avoid creating dust.</p> <p>Advice on general occupational hygiene: Wash hands after handling and before eating. Avoid prolonged exposure. All handling to take place in well-ventilated area. Shower after work. Remove and wash contaminated clothing promptly. See also Section 8 for additional information on hygiene measures.</p>
Conditions for Safe Storage, Including Any Incompatibilities	Use good housekeeping in storage and work areas to prevent accumulation of dust. Tightly close container when not in use. Store in cool, dry area away from incompatible materials (see Section 10 of this safety data sheet).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Occupational exposure limits:

Product/ingredient Name	OSHA PEL-TWA	ACGIH TLV-TWA	NIOSH REL-TWA
Calcium carbonate (CAS No. 471-34-1)	15 mg/m ³ (total dust); 5 mg/m ³ (respirable fraction)	10 mg/m ³	10 mg/m ³ (total dust); 5 mg/m ³ (respirable fraction)

Appropriate Engineering Controls

Use only with adequate ventilation. If user operations generate dust, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Individual Protection Measures, Such as Personal Protective Equipment

If engineering controls and work practices cannot prevent excessive exposures, the selection and proper use of personal protective equipment should be determined by an industrial hygienist or other qualified professional based on the specific application of this product.

Hygiene measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Wear safety glasses or goggles to protect against exposure.

Hand protection: Normal work gloves.

Body protection: Wear clothing appropriate for the work environment. Dusty clothing should be laundered before reuse. Use precautionary measures to avoid creating dust when removing or laundering clothing.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved.

Respiratory protection: If significant exposures are possible then the following respirator is recommended: dust/mist respirator (N95, P2/P3). All respiratory protection equipment should be used within a comprehensive respiratory protection program that meets the requirements of 29 CFR 1910.134 (U.S. OSHA Respiratory Protection Standard) or local equivalent.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

White solid flakes.

Odor

Odorless.

Odor Threshold	Not applicable.
pH	Not applicable.
Melting Point/Freezing Point	520°C.
Initial Boiling Point and Boiling Range	825°C.
Flash Point	Not applicable.
Evaporation Rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/Lower Flammability or Explosive Limits	Not applicable.
Vapor Pressure	Not applicable.
Vapor Density	Not applicable.
Relative Density	2.93 g/cm ³ .
Solubility	0.00153 g/100 ml (in water).
Partial coefficient (n-octanol/water)	Not available.
Auto-ignition Temperature	Not available.
Decomposition Temperature	Not available.
Viscosity	Not available.

10. STABILITY AND REACTIVITY

Reactivity	This product is stable.
Chemical Stability	Stable under normal conditions.
Possibility of Hazardous Reactions	Reacts violently with acids.
Conditions to Avoid	Direct sunlight. Extremely high or low temperatures.
Incompatible Materials	Strong acids. Strong oxidizers.
Hazardous Decomposition Products	Carbon monoxide (CO), carbon dioxide (CO ₂), calcium oxides (CO _x).

11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

Acute toxicity:

Product/ingredient Name	Oral LD ₅₀	Dermal LD ₅₀	Inhalation LD ₅₀
Calcium carbonate (CAS No. 471-34-1)	6450 mg/kg (rat)	No data available	No data available

Irritation/Corrosion: Causes skin irritation. Causes eye irritation.

Sensitization: No information available.

Mutagenicity: No information available.

Carcinogenicity: No information available

Reproductive toxicity: No information available.

Teratogenicity: No information available.

Specific target organ toxicity (single exposure): May cause respiratory irritation.

Specific target organ toxicity (repeated exposure): Causes damage to organs (lungs) through prolonged or repeated exposure if inhaled.

Aspiration hazard: Not applicable.

Information on Likely Routes of Exposure

Routes of entry anticipated: Oral; dermal, inhalation.

Inhalation: No specific data.

Skin contact: No specific data.

Eye contact: No specific data.

Ingestion: No specific data.

Symptoms Related to the Physical, Chemical and Toxicological Characteristics

Inhalation: No specific data.

Skin contact: No specific data.

Eye contact: Causes eye irritation.

Ingestion: No specific data.

Delayed and Immediate Effects, and also Chronic Effects From Short and Long-term Exposure

See the Information on Toxicological Effects in this section of the safety data sheet.

Numerical Measures of Toxicity

Acute toxicity estimate: Not available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

No information available.

Persistence and Degradability

The methods for determining biodegradability are not applicable to inorganic substances.

Bioaccumulative Potential	No information available.
Mobility in Soil	No information available.
Other Adverse Effects	No information available.

13. DISPOSAL CONSIDERATIONS

Description of Waste Residues and Information on Their Safe Handling and Methods of Disposal, Including the Disposal of Any Contaminated Packaging

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional or local authority requirements. If possible, recover the product. Otherwise, dispose of in an authorized landfill or incinerate in accordance with local regulation. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Do not reuse container.

14. TRANSPORT INFORMATION

UN Number	Not regulated.
UN Proper Shipping Name	Not regulated.
Transport classes	Not regulated.
Packing Group	Not regulated.
Environmental Hazards	Not applicable.
Transport in Bulk (according to Annex II of MARPOL 73/78 and the IBC Code)	Not applicable.
Special Precautions For User	Transport within user's premises: Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

15. REGULATORY INFORMATION

U.S. Federal Regulations	<p>CERCLA: Hazardous Substance List: Not applicable.</p> <p>SARA Title III, Section 302/304 Extremely Hazardous Substances: Not applicable.</p> <p>SARA Title III, Section 311/312 Hazard Categories:</p> <p>Skin corrosion/irritation.</p> <p>Eye damage/irritation.</p>
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SAFETY DATA SHEET

CALCIUM CARBONATE

(ALL GRADES)

Specific target organ toxicity (single exposure).

Specific target organ toxicity (repeated exposure).

SARA Title III, Section 313 Toxics Release Inventory (TRI) Program: Not applicable.

TSCA:

TSCA 8(a) CDR Exempt/Partial Exemption: Not determined.

TSCA 8(b) Chemical Inventory: All components are listed or exempted.

International Inventories

Australia (AICS):	Not determined.
Canada (DSL):	All components are listed or exempted.
China (IECSC):	Not determined.
European Union (EINECS/ELINCS):	Not determined.
Japan (ENCS):	Not determined.
New Zealand (NZIoC):	Not determined.
Philippines (PICCS):	Not determined.
South Korea (KECL):	Not determined.
Taiwan (NECI):	Not determined.
United States (TSCA):	All components are listed or exempted.

16. OTHER INFORMATION

Prepared By	Product Safety Committee
Revision Number	2.00
Revision Date	05 September 2021
Updates from Previous Revision	Updated all section to GHS format.

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Acronyms and Abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists
AICS	Australian Inventory of Chemical Substances
CAS	Chemical Abstract Services (division of the American Chemical Society)
CDR	Chemical Data Reporting
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
DSL	Domestic Substances List
EC ₅₀	Half Maximal Effective Concentration

SAFETY DATA SHEET

CALCIUM CARBONATE

(ALL GRADES)

EINECS / ELINCS	European Inventory of Existing Chemical Substances / European List of Notified Chemical Substances
ENCS	Existing and New Chemical Substances
IBC	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China
KECL	Korean Existing Chemical List
LC ₅₀	Lethal concentration for 50 percent of the test population
LD ₅₀	Lethal dose for 50 percent of the test population
LL ₀	Lethal load for 0 percent of the test population
LL ₅₀	Lethal load for 50 percent of the test population
MARPOL 73/78	International Convention for the Prevention of Pollution from Ships
mg/kg	Milligram per kilogram
mg/l	Milligram per liter
mg/m ³	Milligram per cubic meter
MSHA	Mine Safety and Health Administration
NECI	National Existing Chemical Inventory
NIOSH	National Institute for Occupational Safety and Health
NZIOC	New Zealand Inventory of Chemicals
OSHA	Occupational Safety and Health Administration, U.S. Department of Labor
PEL	Permissible Exposure Limit
PICCS	Philippines Inventory of Chemicals and Chemical Substances
ppm	Part per million
SARA	Superfund Amendments and Reauthorization Act
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act
TWA	Time-weighted Average
UN	United Nations
U.S.	United States

END OF SAFETY DATA SHEET