



# SAFETY DATA SHEET

## CALCIUM-MAGNESIUM OXIDE

### SECTION 1. IDENTIFICATION

#### PRODUCT



<b>Name</b>	Calcium-Magnesium Oxide
<b>Other Names</b>	Quicklime Dolomitic, calcium-magnesium Oxide, bulk dolomite, Insufflation dolomite, TS-inflated dolomite, lime Dolomite in TS, Burn Dolomite
<b>Brand</b>	OXID PLUS, DOLOCAL
<b>Formula</b>	CaMgO <sub>2</sub>
<b>Uses</b>	Steel Industry: calcined dolomite is used to improve slagging and to lengthen the life of refractory coatings of kilns and spoons. It is one of the various raw materials used for the manufacture of refractory bricks used in steel furnaces, also used in the manufacture of flat glass, where the MgO acts as a stabilizer, improving the resistance of the glass to attack of gases and moisture.

#### MANUFACTURER

**General Office's** **Servicios Administrativos Calidra, S.A. de C.V.**  
Av. Vasco de Quiroga # 1800 PH-A Col. Santa Fe Delegación Álvaro Obregón. Ciudad de México. C.P. 01210 Tel 01 (800) 021 9711

Av. Lázaro Cárdenas #303 Col. Haciendas de la Sierra, C.P. 66250, San Pedro Garza García, Nuevo León. C.P. 66250 Tel +52 81 17 34 1520

[www.calidra.com](http://www.calidra.com)

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3700

Carretera San Luis Potosí-Río Verde Km.  
32, Poblado Los Mafías, Zaragoza, San  
Luis Potosí C.P. 79540 Tel: (444) 818 1516

Acceso Norte #110 Col. Industrial  
Mexicana San Luis Potosí, S.L.P C.P. 78435  
Tel: 01 (444) 812 3119

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**SECTION 2. HAZARD(S) IDENTIFICATION**

**Signal word**

Danger

**Hazard Pictograms**



**Hazard Statements**

H 315: Causes skin irritation. Category 2.  
H 318: Causes Serious eye damage. Category 1.  
H 335: May irritate the airways. Category 3.

**Precautionary  
Statements**

PREVENTION  
P102: Keep out of reach of children.

P201: Get special instructions before using.  
 P202: Do Not tamper until the safety precautions have been read and understood.  
 P261: Avoid breathing the dust.  
 P270: Do Not eat, drink or smoke while using this product.  
 P280: Wear Protective Gloves/protective clothing/eye protection/face protection.

**EMERGENCY RESPONSE**

P314: Get Medical attention If you are not feeling well.  
 P304 + P340 + P312: IN CASE OF INHALATION: Transport The victim to the outside and keep it at rest in a comfortable position to breathe.  
 P302 + P352 + P362 + P363: IN CASE OF SKIN CONTACT: Wash with plenty OF soap and water. Remove contaminated clothing. Wash contaminated clothing before reuse.  
 P332 + P313: In Case of skin irritation: consult a doctor.  
 P305 + P351 + P338 + P310: IN CASE OF EYE CONTACT: Rinse carefully with water for several minutes. Remove Contact lenses (if used) if possible and easy to remove. Continue rinsing. Immediately Call your doctor.  
 P301 + P330 + P331: IF SWALLOWed: Rinse the mouth. Do Not induce vomiting.

**STORAGE**

P401: Store Minimizing the generation of dust.  
 P402: Store in dry place.

**PROVISION**

P501: Dispose of the contents and the container in accordance with local, regional, national and international regulations.

**WHMIS/ GHS/  
 Nom 018 STPS**

Corrosion or Skin Irritation – Category 2  
 Serious Eye Damage / Eye Irritation - Category 1  
 Specific target organ toxicity (single exposure) 3.  
 Specific target organ toxicity (repeated exposures) 1.

**Others Hazards**

Calcium oxide when it is in contact with water reacts violently generating heat

**SECTION 3: COMPOSITION / INFORMATION OF INGREDIENTS**

Nombre del ingrediente	Concentración	Número CAS
Óxido de calcio-magnesio	90-100%	37247-91-9

#### SECTION 4: FIRST AID MEASURES

<b>Inhalation</b>	This product may cause severe irritation in the respiratory system. Remove from the source of dust or take the victim to fresh air. Get medical attention immediately.
<b>Ingestion</b>	This product can cause severe irritation or inflammation in the gastrointestinal tract if swallowed. Do not induce vomiting. Contact a doctor immediately.
<b>Skin Contact</b>	Contact with the skin can cause severe irritation or inflammation of the skin, especially in the presence of moisture. Wash the exposed area with large amounts of water. Contact a doctor immediately.
<b>Eye Contact</b>	Eye contact can cause severe irritation or inflammation, including permanent damage. Immediately rinse your eyes with plenty of water for several minutes. Move the eyelid to make sure all lime dust has been removed. Seek medical attention immediately. Do not rub your eyes.

#### SECTION 5: FIRE-FIGHTING MEASURES

<b>Fire</b>	Not considered to be a fire hazard
<b>Explosion</b>	Not considered to be an Explosion Hazard
<b>Fire Extinguishing Media</b>	Appropriate extinction measures The product is not combustible. Use extinction measures that are appropriate to local circumstances and the surrounding environment. Unsuitable extinguishing measures.
<b>Special Information</b>	Do not use water as it reacts with calcium oxide generating heat. Specific hazards arising from the substance or mixture. Calcium oxide reacts violently with water and generates heat. This can cause the container that contains it to break.

#### SECTION 6: MEASURES IN CASE OF ACCIDENTAL RELEASE

<b>Steps to be taken in case material is spilled</b>	<ul style="list-style-type: none"> <li>• Avoid contact with skin and eyes, and keep the powder level to a minimum. Ensure adequate ventilation and / or adequate respiratory protection equipment (Section 8). Control</li> <li>• Keep the material dry if possible. Use suction systems, if available, or broom and shovel. Use recovery drums to collect dry and wet.</li> <li>• Ventilate the area of the leak or spill.</li> <li>• Keep unnecessary and unprotected people away from the spill area.</li> <li>• Wear the appropriate personal protective equipment Section 8.</li> <li>• Avoid inhaling dust, ensure sufficient ventilation or use suitable breathing equipment (see section 8).</li> <li>• Keep the material dry</li> <li>• Spills: Pick up and place in a suitable container for recovery or disposal, using a method that does not generate dust.</li> <li>• Do not rinse the caustic waste into the sewer.</li> </ul>
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- Spill residues can be diluted with water, neutralized with diluted acid such as acetic, hydrochloric or sulfuric.
- Absorb the neutralized caustic residue on clay or other inert substance and pack it in a suitable container for disposal in accordance with local, state, federal, national and international disposal and recycling regulations.

## SECTION 7: HANDLING AND STORAGE

### Precautions for safe handling

- Avoid contact with skin and eyes.
- Wear protective equipment (referred to in section 8 of this safety data sheet).
- Avoid excessive dust in the work area and ensure adequate ventilation. Use a dust mask when appropriate.
- Avoid contact with skin and eyes.
- Use adequate eye protection.
- Avoid prolonged contact with skin and clothing.
- Avoid ingestion and contact with food.

### Recommendations for storage

- Keep the product dry, and the bags and containers stored in a dry and well-ventilated place. Store the product in bulk in properly designed hoppers and silos. Keep out of the reach of children.
- Protect against physical damage
- Calcium oxide reacts with water and strong acids. Keep away from nitro compounds and contact with paper and straw.
- Keep the product away from sources of moisture, heat and ignition.
- Store in the area corresponding to corrosives.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Ingredient name	Exposure limits
<i>Calcium-Magnesium Oxide</i>	Nothing
<b>Engineering Control Measures</b>	<ul style="list-style-type: none"> <li>• Ventilation: Ensure adequate ventilation in workplace and apply appropriate PPE as necessary.</li> <li>• Dust Control: Use exhaust ventilation or other engineering controls at handling points to keep airborne levels below recommended exposure limits and /or wear personal protective equipment</li> <li>• Eye Wash: Keep emergency eye wash supplies at the workplace.</li> </ul>
<b>Personal Protective Equipment:</b>	<ul style="list-style-type: none"> <li>• Eye protection: Use google or safety adjustment lens with side shields and / or full face shield. Do not use contact lenses when handling this product.</li> <li>• Hand protection: Wear dry protective gloves. Avoid gloves with open fabrics.</li> <li>• Skin protection: Wear suitable protective clothing to avoid contact with skin with long sleeves and not torn or broken.</li> <li>• Footwear: Boots resistant to alkaline material.</li> </ul>

- Respiratory protection: It is recommended to use a half-face or full-face respirator with a particulate filter.
- Note: Follow the OSHA respirator guidelines found in 29 CFR 1910.134 or European standard EN 149.
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**Hygiene**

Handle the product in accordance with good industrial hygiene and safety practices. Use dry and clean personal protective equipment. The protective cream reduces dryness and irritation. Workers who receive a lot of exposure should shower immediately and apply protection cream on the neck, face and wrists.

**Environmental:**

Ventilation systems should be filtered before discharge to atmosphere

**SECCION 9: PHYSICAL AND CHEMICAL PROPERTIES**

<b>Common Name</b>	Calcium-Magnesium Oxide, Burned Dolomite
<b>Chemical Formula</b>	CaMgO <sub>2</sub>
<b>State Physical</b>	Solid granular, powder
<b>Color</b>	White
<b>Odor</b>	A little sweet as the ground
<b>Stability</b>	Stable
<b>Flammability:</b>	Not-flammable
<b>Explosivity:</b>	Not-flammable
<b>Flas Pt:</b>	Non-Combustible
<b>Melting point</b>	2400°C (4352 °F)
<b>Boiling point</b>	2850-3600°C (5162-6512 °F)
<b>Vapor Density:</b>	Not applicable
<b>Solubility in water</b>	0.1g/100g a 20°C.
<b>Relative density</b>	3.5-3.6 g/cm <sup>3</sup>
<b>pH</b>	11.7 en una solución de 1% en agua a 25°C
<b>% Volatile</b>	0
<b>Density</b>	0.66-1 kg/l
<b>Vapor Press</b>	Not aplicable
<b>Freezing point</b>	Not applicable
<b>Selft ignition</b>	Not applicable

<b>Viscosity</b>	Not available
<b>Partition coefficient</b>	Not available
<b>Evaporation</b>	Not applicable
<b>Decomposition temperature</b>	Not available
<b>Reactivity</b>	Reactive when combined with water.

## SECTION 10: STABILITY AND REACTIVITY

<b>Reactivity</b>	Reacts chemically with acids and other compounds and chemical elements to form calcium-based compounds. Explosive when mixed with organic Nitrogen compounds.
<b>Chemical Stability</b>	Under normal conditions of use and storage (dry conditions) is stable. Sensitive to moisture and air.
<b>Possibility of Hazardous Reactions</b>	Calcium-Magnesium Oxide reacts violently with water and generates a reaction that releases heat.
<b>Conditions to avoid</b>	Humid environments.
<b>Incompatible materials</b>	Strong oxidizing agents The wet material is alkaline and reacts with acids, ammonium salts, aluminum and other reactive metals. For example: Tri-Boron Floride, Tri-Floride Chlorine, Ethanol, Fluorine, Hydrogen Fluoride, Phosphorus Pentoxide, Strong Acids.
<b>Hazardous Decomposition Products</b>	Decomposition products include calcium-magnesium hydroxide and calcium-magnesium carbonate, non-hazardous

## SECTION 11: TOXICOLOGICAL INFORMATION

<b>Routes of entry</b>	By ingestion and inhalation, contact with skin, eyes, mucous membranes in general
<b>Effects or prolonged exposure:</b>	<p>Skin: Causes severe irritation of the mucous membranes and moist skin. The magnitude of the damage depends on the amount and duration of the contact. It is recommended to wear long-sleeved clothing and gloves.</p> <p>Eyes: Extremely dangerous in case of eye contact (corrosive / irritant). Possible injuries and blindness if left untreated for a prolonged period. Wear adequate eye protection and avoid wearing contact lenses - Eye irritation. Standard Draize test (Rabbit) - 10 mg / 24 hr - Severe, investigated as a mutagen</p> <p>Inhalation: Irritation of the nose, oral cavity and throat, coughing and sneezing, inflammation of the respiratory tract, ulcer and perforation of the nasal septum, bronchitis, possible pneumonia. The magnitude of the damage depends on the amount inhaled. Use an appropriate dust mask.</p> <p>Ingestion: Intense burning and edema of the digestive tract, excessive salivation, difficulty in swallowing and breathing, vomiting with blood, lowering of blood pressure and possible perforation of</p>

the esophagus or irritation of the stomach and pain, vomiting, diarrhea, lowering of blood pressure. The magnitude of the damage depends on the amount ingested. Rat LD50 Oral > 500 mg / kg.

**Effects by Chronic Exposure**

Dermatitis: Prolonged contact causes redness, peeling and cracking of the skin.

Sensitization: No sensitizing effects known.

Carcinogenicity: There are no carcinogenicity data available for this product. Calcium-Magnesium oxide is not listed as a carcinogen by ACGIH, MSHA, OSHA, NTP, DFG, RSST or IAARC. however, this product may contain traces of crystalline silica, indicated by such organisms as a known, possible or suspected carcinogen.

**SECTION 12: ECOLOGICAL INFORMATION**

<b>Toxicity</b>	No relevant information is available.
<b>Persistence and degradability:</b>	No relevant information is available.
<b>Bioaccumulative potential:</b>	No relevant information is available.
<b>Mobility in soil:</b>	No relevant information is available.
<b>Other adverse effects:</b>	No relevant information is available.
<b>Additional information</b>	No relevant information is available.

**SECTION 13: DISPOSAL CONSIDERATIONS**

- Waste generation should be avoided or minimized wherever possible.
- The disposal of this product, solutions and any by-products must comply with the requirements of environmental protection and waste disposal legislation and with the requirements of local regional authorities.
- Wastes should not be disposed of untreated into the sewer system unless they fully comply with the requirements of all authorities with jurisdiction.
- Avoid dispersion of spilled material, contact with soil, aquatic environment, drains and sewers.
- Dispose of in accordance with applicable regulations.

**SECTION 14: TRANSPORT / SHIPPING INFORMATION**

- Number of United Nations: 1910
- Appropriate United Nations Shipment Name: Calcium-Magnesium Oxide
- Transport hazard class: 8
- Packing Group Number – III

**SECTION 15: REGULATORY INFORMATION**

<b>TSCA 8b</b>	It is subject to Chemical Inventory Update (RU) reports.
<b>SARA 302/304</b>	Emergency Planning & Release Notification: Not Listed
<b>SARA 311/312</b>	Hazard Categories (40CFR 370) – regulated under OSHA and Emergency Planning and Release Notification:

	Immediate (acute) health hazard
	Delayed (chronic) health hazard
<b>SARA 313</b>	Toxic Release Inventory (TRI) Chemical List: There are no reporting requirements.
<b>CERCLA</b>	Calcium-magnesium oxide is not on the list
<b>RCRA</b>	Hazardous waste number and classification. Not listed or classified
<b>REGULACIONES CANADIENSES</b>	It is not listed in the NPRI, CEPA Toxic Substances, Canada DSL Inventory, NDSL.
<b>CWA 311</b>	CWA (Pure Water Act) List of Hazardous Substances - Not on the list
<b>FDA</b>	Not applicable
<b>PROP 65</b>	Subject to the 1986 Safe Drinking Water and Toxic Enforcement warning and labeling requirements of California Law (Preposition 65) based on the presence of trace metals and silica (at or below detection levels) "known to the State of California to cause cancer."

## SECTION 16: OTHER INFORMATION

<b>CAS</b>	37247-91-9
<b>Definitions</b>	<p>WHMIS: Occupational Hazardous Materials Information System.</p> <p>GHS: Globally Harmonized System of Classification and Labelling of Chemicals.</p> <p>ACGIH: Scientific Charitable Organization Promoting Occupational and Environmental Health</p> <p>NIOSH: National Institute for Occupational Safety and Health.</p> <p>MSHA: Mine, Safety and Health Administration.</p> <p>NTP: Prevention Technical Notes.</p> <p>DFG: German Foundation for Scientific Research.</p> <p>RSST: Internal Safety and Health Regulations</p> <p>IARC: International Agency for Research on Cancer.</p> <p>SARA: Document for the Planning of Local and State Emergencies Around Hazardous Chemicals.</p> <p>CERCLA: Comprehensive Law on Environmental Response, Compensation and Responsibility.</p> <p>TSCA: Toxic Substances Control Act.</p> <p>RCRA: Resource Conservation and Recovery Act.</p> <p>TWA: Time-Weighted Average.</p> <p>PEL: Allowable Exposure Limit.</p> <p>TLV: Threshold Limit Value.</p> <p>REL: Recommended Exposure Limit.</p> <p>PROP 65: Safe Drinking Water Act and Toxic Enforcement Act.</p> <p>HMIS: Hazardous Materials Identification System.</p> <p>CAS: Abstract Chemicals Service (CAS Registration Number)</p> <p>CFR: Code of Federal Regulations.</p> <p>DEP: Department of Environmental Protection.</p> <p>DOT: Department of Transportation.</p> <p>FDA: Food and Drug Administration.</p> <p>NFPA: National Cancer Protection Administration</p> <p>OSHA: Occupational Safety and Health Administration.</p> <p>IATA: International Air Transport Association.</p> <p>IBC: Intermediate Bulk Container.</p>

IMDG: International Maritime Goods.  
MARPOL: International Convention for the Prevention of Pollution from Ships.  
STPS: Ministry of Labor and Social Prevention.  
EPA: U.S. Environmental Protection Agency.  
REACH: European Commission Regulation on the Protection of Human Health and the Environment.  
EINECS: European Inventory of existing Commercial Chemical Substances

**Date of modification**

02/15/2024

**Version**

4

**Prepared by**

[bbarajas@calidra.com.mx](mailto:bbarajas@calidra.com.mx); [fruz@calidra.com.mx](mailto:fruz@calidra.com.mx)

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