



# Safety Data Sheet

## Section 01 - Identification

<b>Product Identifier</b>	Calcium Peroxide
<b>Other Means of Identification</b>	Calcium Superoxide, Solid peroxygen
<b>Product Use and Restrictions on Use</b>	Used as a curing agent in rubber, starch modification, dough conditioner, industrial oxidizer, ingredient in deodorizers, cosmetics and dentifrices
<b>Initial Supplier Identifier</b>	ClearTech Industries Inc. 1500 Quebec Avenue Saskatoon, SK. Canada S7K 1V7
<b>Prepared By</b>	ClearTech Industries Inc. Technical Writer Phone: 1 (800) 387-7503
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## Section 02 - Hazard Identification

### GHS-Classification

<b>Skin Corrosion/Irritation</b>	Category 2
<b>Eye Corrosion/Irritation</b>	Category 1
<b>STOT-Single Exposure</b>	Category 3

### Physical Hazards

<b>Oxidizing Solid</b>	Category 2
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### **Danger**

### **Hazard Statements**

- H272 – May intensify fire; oxidiser.
- H315 – Causes skin irritation.
- H318 – Causes serious eye damage.
- H335 – May cause respiratory irritation.

### **Pictograms**



### **Precautionary Statements**

- P210 – Keep away from heat, sparks, open flames, and hot surfaces. — No smoking.
- P220 – Keep/Store away from clothing, moisture, combustible materials.
- P280 – Wear protective gloves, protective clothing, eye protection, and face protection.
- P370 + P378 – In case of fire: Use appropriate firefighting agent for surrounding material for extinction.

P302 + P352 – IF ON SKIN: Wash with plenty of soap and water.  
 P333 + P313 – If skin irritation or rash 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.  
 P261 – Avoid breathing dust.  
 P271 – Use only outdoors or in a well-ventilated area.  
 P304 + P340 – IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 P403 + P233 – Store in a well-ventilated place. Keep container tightly closed.  
 P501 – Dispose of contents/container in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

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## Section 03 - Composition / Information on Ingredients

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Chemical Name	CAS Number	Weight %	Unique Identifiers
Calcium Peroxide	1305-79-9	75%	
Calcium Hydroxide	1305-62-0	25%	

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## Section 04 - First Aid Measures

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<b>Inhalation</b>	Remove victim to fresh air. Give artificial respiration only if breathing has stopped. If breathing is difficult, give oxygen. Seek immediate medical attention.
<b>Skin Contact / Absorption</b>	Remove contaminated clothing. Wash affected area with soap and water. Seek medical attention if irritation occurs or persists.
<b>Eye Contact</b>	Contact lenses should never be worn when working with this product. Flush immediately with water for at least 30 minutes. Forcibly hold eyelids apart to ensure complete irrigation of eye tissue. Seek immediate medical attention.
<b>Ingestion</b>	Do not induce vomiting. Dilute by giving one or two glasses of water. Do not give anything by mouth to an unconscious or convulsing person. Seek immediate medical attention.
<b>Additional Information</b>	Notes to Physician: Modest irritation is only expected effect and should have no serious consequences except in the case of direct eye contact. If ingested, gastrointestinal irritation is to be expected. If large quantities are ingested, gastric evacuation via emesis or lavage may be used. Demulcents should be helpful. No systemic effects are expected.

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## Section 05 - Fire Fighting Measures

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<b>Suitable Extinguishing Media</b>	Product does not burn. Use any appropriate fire fighting agent for surrounding material. Use flooding quantities of water and water spray to cool containers.
<b>Unsuitable Extinguishing Media</b>	Dry chemical and foam.
<b>Specific Hazards Arising From the Chemical</b>	Under fire conditions, product may decompose and release oxygen gas that supports combustion. Mixtures with polysulphide polymers may ignite.
<b>Special Protective Equipment and Precautions for Fire-Fighters</b>	Wear NIOSH-approved self-contained breathing apparatus and protective clothing.
<b>Further Information</b>	Not Available

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## Section 06 - Accidental Release Measures

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<b>Personal Precautions / Protective Equipment / Emergency Procedures</b>	Wear appropriate personal protective equipment. Ventilate area. Only enter area with PPE. Stop or reduce leak if safe to do so. Flush with water to remove any residue.
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**Environmental Precautions** Prevent runoff to sewer or waterways.

**Methods and Materials for Containment and Cleaning Up** SMALL SPILL: Use appropriate tools to put the spilled solid in a convenient waste disposal container. If necessary: Neutralize the residue with a dilute solution of acetic acid.  
LARGE SPILL: Oxidizing material. Stop leak if without risk. Avoid contact with a combustible material (wood, paper, oil, clothing...). Keep the substances damp using a water spray. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Neutralize the residue with a dilute solution of acetic acid

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## Section 07 - Handling and Storage

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**Precautions for Safe Handling** Use proper equipment for lifting and transporting all containers. Use sensible industrial hygiene and housekeeping practices. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure. If compounded with organics or combustible materials, be sure to exclude moisture.

**Conditions for Safe Storage** Keep material dry. Store in a clean cool place. Do not store near or expose to heat sources (ie: steam pipes, radiant heaters, hot hair vents or welding sparks). Avoid contact with reducing agents and oxidizers. Reacts with moisture. Keep container tightly closed when not in use.

**Incompatibilities** Heat, heavy metals, organics, reducing agents, polysulphide polymers.

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## Section 08 - Exposure Controls and Personal Protection

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### Exposure Limit(s)

Component	Regulation	Type of Listing	Value
Calcium Hydroxide	OSHA	PEL-TWA	15mg/m <sup>3</sup> (total dust)
	ACGIH	TLV-TWA	5mg/m <sup>3</sup>

### Engineering Control(s)

**Ventilation Requirements** Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions must be provided in accordance with all fire codes and regulatory requirements. Supply sufficient replacement air to make up for air removed by exhaust systems.

**Other** Emergency shower and eyewash must be available and tested in accordance with regulations and be in close proximity.

### Protective Equipment

**Eyes/Face** Chemical goggles, full-face shield, or a full-face respirator is to be worn at all times when product is handled. Contact lenses should not be worn; they may contribute to severe eye injury.

**Hand Protection** Impervious gloves of chemically resistant material (rubber or PVC) should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.

**Skin and Body Protection** Body suite, aprons, and/or coveralls of chemical resistant material should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.  
Impervious boots of chemically resistant material should be worn at all times. No special footwear is required other than what is mandated at place of work.

**Respiratory Protection** NIOSH-approved respirator for dust should be worn if needed.

**Thermal Hazards** Not Available

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## Section 09 - Physical and Chemical Properties

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### Appearance

<b>Physical State</b>	Powder
<b>Colour</b>	White to yellow
<b>Odour</b>	Odourless
<b>Odour Threshold</b>	Not Applicable

### Property

<b>pH</b>	10.5-11.8 (1% solution)
<b>Melting Point/Freezing Point</b>	Decomposes
<b>Initial Boiling Point and Boiling Range</b>	Not Applicable
<b>Flash Point</b>	Not Applicable
<b>Evaporation Rate</b>	Not Applicable
<b>Flammability</b>	Non-Flammable
<b>Upper Flammable Limit</b>	Not Applicable
<b>Lower Flammable Limit</b>	Not Applicable
<b>Vapour Pressure (mm Hg, 20°C)</b>	Not Applicable
<b>Vapour Density (Air=1)</b>	Not Applicable
<b>Relative Density</b>	Not Available
<b>Solubility(ies)</b>	Insoluble
<b>Partition Coefficient: n-octanol/water</b>	Not Available
<b>Auto-ignition Temperature</b>	Not Applicable
<b>Decomposition Temperature</b>	~ 275°C
<b>Viscosity</b>	Not Available
<b>Explosive Properties</b>	Oxidizable materials can be ignited by grinding and may become explosive.
<b>Specific Gravity (Water=1)</b>	2.92
<b>% Volatiles by Volume</b>	Not Applicable
<b>Formula</b>	CaO <sub>2</sub>
<b>Molecular Weight</b>	72.8 (100% product)

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## Section 10 - Stability and Reactivity

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<b>Reactivity</b>	Decomposition could occur when exposed to heat or moisture
<b>Stability</b>	Stable under normal conditions.
<b>Possibility of Hazardous Reactions</b>	Polymerization will not occur.
<b>Conditions to Avoid</b>	Moisture, heat, temperatures exceeding 275°C.
<b>Incompatible Materials</b>	Heat, heavy metals, organics, reducing agents, polysulphide polymers, strong oxidizing agents, sulphides, water, fluorine, ethanol.
<b>Hazardous Decomposition Products</b>	Decomposition products include oxygen that supports combustion and calcium hydroxide.

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## Section 11 - Toxicological Information

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### Acute Toxicity Estimate

<b>Component</b>	<b>Oral LD<sub>50</sub></b>	<b>Dermal LD<sub>50</sub></b>	<b>Inhalation LC<sub>50</sub></b>
Calcium Peroxide	500-2000mg/kg (rat)	Not Available	Not Available

This product has been classified in accordance with the Hazardous Products Regulations using ATE formula documented in the GHS standard.

### Chronic Toxicity – Carcinogenicity

<b>Component</b>	<b>IARC</b>
Calcium Peroxide	None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

<b>Skin Corrosion/Irritation</b>	Can cause skin irritation.
<b>Ingestion</b>	Airborne dust can be irritating to nose, throat and lungs.
<b>Inhalation</b>	If ingested, gastrointestinal irritation is expected.
<b>Serious Eye Damage/Irritation</b>	Airborne dust is irritating to eyes. Direct contact with powder is severely irritating.
<b>Respiratory or Skin Sensitization</b>	Calcium hydroxide is not known to be a respiratory or skin sensitizer.
<b>Germ Cell Mutagenicity</b>	Calcium hydroxide is not known to be a mutagen.
<b>Reproductive Toxicity</b>	Calcium hydroxide is not known to cause reproductive toxicity.
<b>STOT-Single Exposure</b>	May cause respiratory irritation.
<b>STOT-Repeated Exposure</b>	Not Available
<b>Aspiration Hazard</b>	Not Available
<b>Synergistic Materials</b>	Not Available

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## Section 12 – Ecological Information

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### Ecotoxicity

<b>Component</b>	<b>Toxicity to Algae</b>	<b>Toxicity to Fish</b>	<b>Toxicity to Daphnia and Other Aquatic Invertebrates</b>
Calcium Hydroxide	EC <sub>50</sub> (Blue-Green Algae, 22hr): 84mg/L	LC <sub>50</sub> (Gambusia affinis, 96hr): 160mg/L	LC <sub>50</sub> (Crangon septemspinosa, 96hr):158mg/L

<b>Biodegradability</b>	Not Available
<b>Bioaccumulation</b>	Does not bioaccumulate.
<b>Mobility</b>	Not Available
<b>Other Adverse Effects</b>	Not Available

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## Section 13 – Disposal Considerations

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<b>Waste From Residues/Unused Products</b>	Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.
<b>Contaminated Packaging</b>	Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

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## Section 14 – Transport Information

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<b>UN Number</b>	UN1457				
<b>UN Proper Shipping Name</b>	CALCIUM PEROXIDE				
<b>Transport Hazard Class(es)</b>	5.1				
<b>Packaging Group</b>	II				
<b>Environmental Hazards</b>	Not listed as a marine pollutant under Canadian TDG Regulations, schedule III.				
<b>Special Precautions</b>	Not Available				
<b>Transport in Bulk</b>	Not Available				
<b>Additional Information</b>	<table> <tr> <td><u>Packing Group</u></td> <td><u>Limited Quantity Index</u></td> </tr> <tr> <td>II</td> <td>1 Kg</td> </tr> </table>	<u>Packing Group</u>	<u>Limited Quantity Index</u>	II	1 Kg
<u>Packing Group</u>	<u>Limited Quantity Index</u>				
II	1 Kg				

### TDG

**Other** Secure containers (full and/or empty) with suitable hold down devices during shipment and ensure all caps, valves, or closures are secured in the closed position.

**TDG PRODUCT CLASSIFICATION:** This product has been classified on the preparation date specified at section 14 of this MSDS / SDS, for transportation in accordance with the requirements of part 2 of the Transportation of Dangerous Goods Regulations. If applicable, testing and/or published test data regarding the classification of this product are listed in the references at section 16 of this MSDS / SDS.

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## Section 15 – Regulatory Information

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**NOTE: THE PRODUCT LISTED ON THIS SDS HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CANADIAN CONTROLLED PRODUCTS REGULATIONS. THIS SDS CONTAINS ALL INFORMATION REQUIRED BY THOSE REGULATIONS.**

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## Section 16 – Other Information

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**Preparation Date** August 19, 2015

**Note:** The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations.

### **Attention: Receiver of the chemical goods / SDS coordinator**

As part of our commitment to the Canadian Association of Chemical Distributors (CACD) Responsible Distribution<sup>®</sup> initiative, ClearTech Industries Inc. and its associated companies require, as a condition of sale, that you forward the attached Safety Data Sheet(s) to all affected employees, customers, and end-users. ClearTech will send any available supplementary handling, health, and safety information to you at your request.

If you have any questions or concerns please call our customer service center.

**References:**

- 1) CHEMINFO
- 2) eChemPortal
- 3) TOXNET
- 4) Transportation of Dangerous Goods Canada
- 5) HSDB
- 6) ECHA
- 7) PAN

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