

Calcium Peroxide


Redox Tech

SAFETY DATA SHEET

Section 1: Identification

Product Name:	Calcium Peroxide (CaO ₂)
Chemical Description:	Mixture; solid white powder
Supplier/Manufacturer:	Redox Tech 200 Quade Dr Cary NC 27513
Recommended Use:	Groundwater and Soil Remediation (environmental applications)
Restricted Use:	Any use not specified by the manufacturer
24-Hour Emergency Contact:	ChemTrec (P): 800-424-9300

Section 2: Hazard(s) Identification

Hazard Classification:	Oxidizer; Irritant (skin and eye)
Signal Word:	Danger
Hazard Statement(s):	Oxidizer; may decompose exothermically and ignite combustible material.
Pictograms:	
Precautionary Statement(s):	Not for human consumption. Do not store near combustible material. Prevent contact with eyes and skin. Wear protective gloves and eye protection. Avoid aerosol generation.

Section 3: Composition/Information on Ingredients

Chemical Name	CAS NO.	% by Weight
Calcium Peroxide	1305-79-9	75
Calcium Hydroxide	1305-62-0	25

Section 4: First-Aid Measures

Routes of Exposure	Emergency First-Aid Procedures
Inhalation	Remove to fresh air; if breathing difficulty or discomfort persists seek medical attention
Eye Contact	Flush with water for 15 minutes and immediately seek medical attention
Skin Contact	Wash with mild soap and water; if irritation persists seek medical attention
Ingestion	Rinse mouth with water and dilute by consuming 1-2 glasses of water. Do not induce vomiting. Immediately seek medical attention

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Section 5: Fire-Fighting Measures

Extinguishing Media:	CO2, foam or dry chemical appropriate for surrounding materials
Special Fire Fighting Procedures:	Wear self-contained breathing apparatus and chemical resistant clothing.
Fire Hazard(s):	Oxidizer; may decompose exothermically and ignite combustible material. Oxygen release during decomposition may support combustion.
Explosion Hazard(s):	Storage vessels in a fire may vent gas or rupture violently.

Section 6: Accidental Release Measures

Personal Precautions:	Avoid contact with eyes, skin and clothing. Do not breathe dusts. Wash hands and skin thoroughly after handling.
Emergency Procedures:	In event of fire, use large quantities of water and call the fire department. In case of a fire, all means of extinguishing are acceptable. Do not approach flames or hot vessels that contain this product.
Methods & Materials used for Containment:	Avoid using materials that will create excess dust. Wet with water spray and shovel into appropriate container, clean residue with dilute solution of acetic acid
Cleanup Procedures:	Shovel material into containers for disposal. Flush remaining area with water to remove trace residue and dispose of properly. Avoid discharge to sewers and surface waters; notify authorities if discharge occurs.

Section 7: Handling and Storage

Safe Handling & Storage:	Store in cool, dry, well-ventilated area away from all sources of heat and ignition. Keep out of direct sunlight and protect from moisture and incompatible materials.
Other Precautions:	Prevent contact with combustible or organic materials. Do not store in unlabeled or mislabeled containers. Keep containers well sealed. Consumption of food and beverages should be prevented in work area where product is being used. After handling product, always wash hands and face thoroughly with soap and water before eating, drinking, or smoking.

Section 8: Exposure Controls/Personal Protection

Exposure Limits

OSHA PEL:	Dusts (as Calcium Hydroxide)	15 mg/m ³ (total) 5 mg/m ³ (respirable)
ACGIH TLV:	Dusts (as Calcium Hydroxide)	5 mg/m ³
NIOSH REL:	Dusts (as Calcium Hydroxide)	5 mg/m ³

Personal Protective Measures

Respiratory Protection:	Not normally required; wear NIOSH approved particulate respirator where dusts are generated.
Hand Protection:	Impervious protective gloves made of nitrile, natural rubber or neoprene
Eye Protection:	Chemical safety goggles recommended

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Engineering Measures:	Use in a well-ventilated area; Avoid creating dust. Local exhaust ventilation if aerosols are generated
Hygiene Measures:	Wash promptly with soap & water if skin becomes irritated from contact.
Other Protection:	Wear appropriate clothing to prevent skin contact; have eye wash station located at site

Section 9: Physical and Chemical Properties

Appearance:	White powder	Explosive Limits:	NE
Odor:	None	Vapor Pressure:	NE
Odor Threshold:	N/A	Vapor Density:	1.18
pH:	N/A	Relative Density:	2.92
Melting Point/Freezing Point:	Decomposes @ 275°F (135°C)	Solubility:	Slightly soluble
Boiling Point:	N/A	Partition coefficient:	NE
Flash Point:	NE	Auto-ignition Temperature:	N/A
Evaporation Rate:	NE	Decomposition Temperature:	275°F (135°C)
Flammability (solid, gas):	NE	Viscosity:	N/A

NE – Not Established

N/A – Not Applicable

Section 10: Stability and Reactivity

Stability:	Stable under normal conditions
Incompatibility:	Water, acids, bases, salts of heavy metals, reducing agents, organic materials, flammable substances
Hazardous Decomposition Products:	Oxygen: supports combustion
Hazardous Reactions/Polymerization:	None Known
Conditions to Avoid:	Excessive heat, ignition sources

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Section 11: Toxicological Information

Likely Routes of Exposure:	Inhalation, Ingestion, Dermal and Eye contact
Signs and Symptoms of Exposure:	Irritation of eyes, nose, throat, lungs, skin
Health Hazards	
Acute:	Potential eye, nose, throat, lung and skin irritant; eye contact may cause serious or permanent eye lesions; Ingestion may be irritating to throat and mouth causing nausea and vomiting.
Chronic:	None Known
Carcinogenicity	
NTP:	No
IARC:	No
OSHA:	No

Section 12: Ecological Information (non-mandatory)

There is no data on the ecotoxicity of this product.

Section 13: Disposal Considerations (non-mandatory)

Waste Disposal Methods:	Dispose of according to Federal and local regulations for non-hazardous waste.
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Section 14: Transport Information (non-mandatory)

UN Number: 3085	Transport Hazard Class: 5.1
UN Proper Shipping Name: Calcium Peroxide	Packing Group: II

Section 15: Regulatory Information (non-mandatory)

HMIS® Rating: Health – 2 , Reactivity – 1 , Flammability – 0, PPE – Required
NFPA® Rating: Health – 2 , Reactivity – 1 , Flammability – 0 , OX

Section 16: Other Information

Date of Preparation:	29 May 2014
Last Modified Date:	20 April 2023
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