

# CALCIUM PEROXIDE

CCP

## CAUTIONARY RESPONSE INFORMATION

<b>Common Synonyms</b> Calcium dioxide	Solid powder Yellow to white Odorless
Sinks in water.	
<p>Keep people away. Shut off ignition sources and call fire department. Notify local health and pollution control agencies. Protect water intakes.</p>	
<b>Fire</b>	Not flammable. May cause fire on contact with combustibles. Containers may explode in fire. Flood discharge area with water. Cool exposed containers with water.
<b>Exposure</b>	Call for medical aid. DUST Irritating to eyes, nose and throat. Move victim to fresh air. If in eyes, hold eyelids open and flush with plenty of water.  SOLID Irritating to skin and eyes. Harmful if swallowed. Remove contaminated clothing and shoes. Flush affected areas with plenty of water. IF IN EYES, hold eyelids open and flush with plenty of water. IF SWALLOWED and victim is CONSCIOUS, have victim drink water or milk.
<b>Water Pollution</b>	Effect of low concentrations on aquatic life is unknown. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.

<b>1. CORRECTIVE RESPONSE ACTIONS</b> Dilute and disperse Stop discharge Collection Systems: Dredge	<b>2. CHEMICAL DESIGNATIONS</b> 2.1 <b>CG Compatibility Group:</b> Not listed. 2.2 <b>Formula:</b> CaO <sub>2</sub> 2.3 <b>IMO/UN Designation:</b> 5.1/1457 2.4 <b>DOT ID No.:</b> 1457 2.5 <b>CAS Registry No.:</b> 1305-79-9 2.6 <b>NAERG Guide No.:</b> 140 2.7 <b>Standard Industrial Trade Classification:</b> 52269
<b>3. HEALTH HAZARDS</b>	
<p>3.1 <b>Personal Protective Equipment:</b> U.S.B.M. -approved toxic dust respirator; general-purpose gloves; chemical safety goggles; full cover clothing.</p> <p>3.2 <b>Symptoms Following Exposure:</b> Inhalation of dust irritates nose and throat. Dust also irritates eyes and skin on contact and irritates mouth and stomach if ingested.</p> <p>3.3 <b>Treatment of Exposure:</b> INHALATION: remove to fresh air. EYES: flush with water for 15 min. and consult physician. SKIN: flush with water. INGESTION: give large amounts of water.</p> <p>3.4 <b>TLV-TWA:</b> Not listed. 3.5 <b>TLV-STEL:</b> Not listed. 3.6 <b>TLV-Ceiling:</b> Not listed. 3.7 <b>Toxicity by Ingestion:</b> Currently not available 3.8 <b>Toxicity by Inhalation:</b> Currently not available. 3.9 <b>Chronic Toxicity:</b> Currently not available 3.10 <b>Vapor (Gas) Irritant Characteristics:</b> Currently not available 3.11 <b>Liquid or Solid Characteristics:</b> Currently not available 3.12 <b>Odor Threshold:</b> Odorless 3.13 <b>IDLH Value:</b> Not listed. 3.14 <b>OSHA PEL-TWA:</b> Not listed. 3.15 <b>OSHA PEL-STEL:</b> Not listed. 3.16 <b>OSHA PEL-Ceiling:</b> Not listed. 3.17 <b>EPA AEGL:</b> Not listed</p>	

## 4. FIRE HAZARDS

- 4.1 **Flash Point:**  
Not flammable, but may cause fire on contact with combustible material.
- 4.2 **Flammable Limits in Air:** Not pertinent
- 4.3 **Fire Extinguishing Agents:** Flood with water, or use dry powder (e.g., graphite or powdered limestone)
- 4.4 **Fire Extinguishing Agents Not to Be Used:** Not pertinent
- 4.5 **Special Hazards of Combustion Products:** Not pertinent
- 4.6 **Behavior in Fire:** Can increase severity of fire. Containers may explode.
- 4.7 **Auto Ignition Temperature:** Not pertinent
- 4.8 **Electrical Hazards:** Not pertinent
- 4.9 **Burning Rate:** Not pertinent
- 4.10 **Adiabatic Flame Temperature:** Currently not available
- 4.11 **Stoichiometric Air to Fuel Ratio:** Not Pertinent
- 4.12 **Flame Temperature:** Currently not available
- 4.13 **Combustion Molar Ratio (Reactant to Product):** Not Pertinent
- 4.14 **Minimum Oxygen Concentration for Combustion (MOCC):** Not listed

## 5. CHEMICAL REACTIVITY

- 5.1 **Reactivity with Water:** Reacts very slowly with water at room temperature to form limewater and oxygen gas.
- 5.2 **Reactivity with Common Materials:** Heavy metals and dirt can accelerate decomposition to lime and oxygen. The reaction is not explosive.
- 5.3 **Stability During Transport:** Stable
- 5.4 **Neutralizing Agents for Acids and Caustics:** Flush with water
- 5.5 **Polymerization:** Not pertinent
- 5.6 **Inhibitor of Polymerization:** Not pertinent

## 6. WATER POLLUTION

- 6.1 **Aquatic Toxicity:**  
Currently not available
- 6.2 **Waterfowl Toxicity:** Currently not available
- 6.3 **Biological Oxygen Demand (BOD):** None
- 6.4 **Food Chain Concentration Potential:** None
- 6.5 **GESAMP Hazard Profile:** Not listed

## 7. SHIPPING INFORMATION

- 7.1 **Grades of Purity:** Commercial: 60+%
- 7.2 **Storage Temperature:** Stable
- 7.3 **Inert Atmosphere:** No requirement
- 7.4 **Venting:** Pressure-vacuum
- 7.5 **IMO Pollution Category:** Currently not available
- 7.6 **Ship Type:** Currently not available
- 7.7 **Barge Hull Type:** Currently not available

## 8. HAZARD CLASSIFICATIONS

- 8.1 **49 CFR Category:** Oxidizer
- 8.2 **49 CFR Class:** 5.1
- 8.3 **49 CFR Package Group:** II
- 8.4 **Marine Pollutant:** No
- 8.5 **NFPA Hazard Classification:** Not listed
- 8.6 **EPA Reportable Quantity:** Not listed.
- 8.7 **EPA Pollution Category:** Not listed.
- 8.8 **RCRA Waste Number:** Not listed
- 8.9 **EPA FWPCA List:** Not listed

## 9. PHYSICAL & CHEMICAL PROPERTIES

- 9.1 **Physical State at 15° C and 1 atm:** Solid
- 9.2 **Molecular Weight:** 72.1
- 9.3 **Boiling Point at 1 atm:** Decomposes
- 9.4 **Freezing Point:** Not pertinent
- 9.5 **Critical Temperature:** Not pertinent
- 9.6 **Critical Pressure:** Not pertinent
- 9.7 **Specific Gravity:** 2.92 at 25°C (solid)
- 9.8 **Liquid Surface Tension:** Not pertinent
- 9.9 **Liquid Water Interfacial Tension:** Not pertinent
- 9.10 **Vapor (Gas) Specific Gravity:** Not pertinent
- 9.11 **Ratio of Specific Heats of Vapor (Gas):** Not pertinent
- 9.12 **Latent Heat of Vaporization:** Not pertinent
- 9.13 **Heat of Combustion:** Not pertinent
- 9.14 **Heat of Decomposition:** -135 Btu/lb = -75 cal/g = -3.1 X 10<sup>5</sup> J/kg
- 9.15 **Heat of Solution:** Not pertinent
- 9.16 **Heat of Polymerization:** Not pertinent
- 9.17 **Heat of Fusion:** Currently not available
- 9.18 **Limiting Value:** Currently not available
- 9.19 **Reid Vapor Pressure:** Currently not available

## NOTES

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9.20 SATURATED LIQUID DENSITY		9.21 LIQUID HEAT CAPACITY		9.22 LIQUID THERMAL CONDUCTIVITY		9.23 LIQUID VISCOSITY	
Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F	Temperature (degrees F)	British thermal unit inch per hour-square foot-F	Temperature (degrees F)	Centipoise
	N O T  P E R T I N E N T		N O T  P E R T I N E N T		N O T  P E R T I N E N T		N O T  P E R T I N E N T

9.24 SOLUBILITY IN WATER		9.25 SATURATED VAPOR PRESSURE		9.26 SATURATED VAPOR DENSITY		9.27 IDEAL GAS HEAT CAPACITY	
Temperature (degrees F)	Pounds per 100 pounds of water	Temperature (degrees F)	Pounds per square inch	Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F
	I N S O L U B L E		N O T  P E R T I N E N T		N O T  P E R T I N E N T		N O T  P E R T I N E N T