

SAFETY DATA SHEET

Calcium Peroxide

SDS # : 1305-79-9-1
Revision date: 2022-05-21
Format: NA
Version 1.05



1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name Calcium Peroxide

Recommended use of the chemical and restrictions on use

Recommended Use: Used as a curing agent in certain rubber compounds. Other uses include starch modification, dough conditioner, and ingredient in deodorants, cosmetics and dentifrices.

Manufacturer/Supplier

Evonik Active Oxygens, LLC
2005 Market Street
Suite 3200
Philadelphia, PA 19103
Phone: +1 267/ 422-2400 (General Information)
E-Mail: Product-regulatory-services@evonik.com

Emergency telephone numbers

For leak, fire, spill or accident emergencies, call:
1 800 / 424 9300 (CHEMTREC - U.S.A.)
1 703 / 527 3887 (CHEMTREC - Collect - All Other Countries)
+1 303/ 389-1409 (Medical - U.S. - Call Collect)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Serious eye damage/eye irritation	Category 1
Specific target organ toxicity (single exposure)	Category 3
Oxidizing Solids	Category 1

GHS Label elements, including precautionary statements

EMERGENCY OVERVIEW

Danger

Hazard Statements

H318 - Causes serious eye damage

H335 - May cause respiratory irritation

H271 - May cause fire or explosion; strong oxidizer



Precautionary Statements - Prevention

P280 - Wear eye protection/ face protection

P261 - Avoid breathing dust.

P271 - Use only outdoors or in a well-ventilated area

P220 - Keep away from clothing and other combustible materials

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

Precautionary Statements - Response

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

P306 + P360 - IF ON CLOTHING: rinse immediately contaminated clothing and skin with plenty of water before removing clothes

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

P312 - Call a POISON CENTER or doctor if you feel unwell

P370 + P378 - In case of fire: Use water spray for extinction

Precautionary Statements - Storage

P403 - Store in a well-ventilated place

P420 - Store separately

Precautionary Statements - Disposal

P501 - Dispose of contents/ container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

No hazards not otherwise classified were identified.

Other Information

Reacts with moisture to liberate oxygen

Reacts with moisture to liberate oxygen

Unknown acute toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS-No	Weight %
Calcium Peroxide	1305-79-9	75 - 86
Calcium Hydroxide	1305-62-0	14 - 25

4. FIRST AID MEASURES

Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids intermittently. Consult a physician.
Skin Contact	Wash off with soap and water. Get medical attention if irritation develops and persists.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. If breathing difficulty or discomfort occurs and persists, obtain medical attention.
Ingestion	Rinse mouth with water and afterwards drink plenty of water or milk. Do not induce vomiting or give anything by mouth to an unconscious person. Call a poison control center or doctor immediately for treatment advice. Never give anything by mouth to an unconscious person.
Most important symptoms and effects, both acute and delayed	Corneal lesions and irreversible damage if contact with the eyes.
Indication of immediate medical attention and special treatment needed, if necessary	Treat symptomatically

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Flood with water.
Unsuitable extinguishing media	Dry chemical. Foam.
Specific Hazards Arising from the Chemical	Not flammable. Decomposes under fire conditions to release oxygen that intensifies the fire.
Explosion data	
Sensitivity to Mechanical Impact	Not sensitive.
Sensitivity to Static Discharge	Not sensitive.
Protective equipment and precautions for firefighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Move containers from fire area if you can do it without risk.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Avoid contact with the skin and the eyes. Avoid dust formation. Ensure adequate ventilation. For personal protection see Section 8.
Other	For further clean-up instructions, call PeroxyChem Emergency Hotline number listed in Section 1 "Product and Company Identification" above.
Environmental Precautions	Prevent material from entering into soil, ditches, sewers, waterways, and/or groundwater. See Section 12, Ecological Information for more detailed information.
Methods for Containment	Vacuum or shovel waste into a drum and label contents for disposal. Do not return product to the original storage container/tank due to risk of decomposition. Keep combustibles (wood, paper, oil, etc) away from spilled material.
Methods for cleaning up	After cleaning, flush away traces with water. Do not flush powdered material to sewer; Runoff to sewer may create fire or explosion hazard.

7. HANDLING AND STORAGE

Handling	Avoid contact with skin and eyes. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment if release of airborne dust is expected. If compounded with organics or combustible materials be sure to exclude moisture.
Storage	Keep tightly closed in a dry and cool place. Do not store near combustible materials. Keep away from heat and sources of ignition i.e., steam pipes, radiant heaters, hot air vents or welding sparks. Reacts with moisture. Keep container tightly closed.
Incompatible products	Heavy metals. Combustible materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH	Mexico
Calcium Hydroxide 1305-62-0	TWA: 5 mg/m ³	TWA: 15 mg/m ³ TWA: 5 mg/m ³	TWA: 5 mg/m ³	Mexico: TWA 5 mg/m ³
Chemical name	British Columbia	Quebec	Ontario TWAEV	Alberta
Calcium Hydroxide 1305-62-0	TWA: 5 mg/m ³	TWA: 5 mg/m ³	TWA: 5 mg/m ³	TWA: 5 mg/m ³

Appropriate engineering controls

Engineering measures Ensure adequate ventilation.

Individual protection measures, such as personal protective equipment

Eye/Face Protection	For dust, splash, mist or spray exposure, wear chemical protective goggles.
Skin and Body Protection	Wear suitable protective clothing. Protective shoes or boots.
Hand Protection	Rubber/latex/neoprene or other suitable chemical resistant gloves. Wash the outside of gloves with soap and water prior to removal. Inspect regularly for leaks.
Respiratory Protection	For dust, splash, mist or spray exposures wear a filtering mask.
Hygiene measures	Clean water, preferably an eyewash station and a safety shower, should be available for

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washing in case of eye or skin contamination. Handle in accordance with good industrial hygiene and safety practice.

General information

If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers. These recommendations apply to the product as supplied.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Powder
Physical State	Solid
Color	White to off white
Odor	odorless
Odor threshold	Not applicable
pH	11.4 - 11.7 (1 % suspension in water) @ 25 °C
Melting point/freezing point	Decomposes on heating @ ~275 °C
Boiling Point/Range	No information available
Flash point	Not applicable
Evaporation Rate	No information available
Flammability (solid, gas)	Substance does not burn but will support combustion
Flammability Limit in Air	Not applicable
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	No information available
Vapor density	No information available
Density	No information available
Specific gravity	2.92
Water solubility	slightly soluble
Solubility in other solvents	Soluble in acids
Partition coefficient	No information available
Autoignition temperature	Product is not self-ignitable.
Decomposition temperature	275 °C
Viscosity, kinematic	No information available (Solid)
Viscosity, dynamic	No information available
Explosive properties	Not explosive
K_{st}	0
Oxidizing properties	Strong oxidizer
<u>Other Information</u>	
Molecular weight	72.8 (CaO ₂)
Bulk density	45 - 34 lb/cu ft (loose)

10. STABILITY AND REACTIVITY

Reactivity	Oxidizer: Avoid contact with combustible materials.
Chemical Stability	Stable under recommended storage conditions. Decomposition can occur on exposure to heat or moisture.
Possibility of Hazardous Reactions	Contamination, heat, and humid conditions will enhance and accelerate decomposition. However, unlike most oxidizers, decomposition is endothermic.
Hazardous polymerization	Hazardous polymerization does not occur.
Conditions to avoid	Heat. (decomposes at 275 °C). Humid air. Contamination. Grinding with organics.
Incompatible materials	Heavy metals. Combustible materials.
Hazardous Decomposition Products	Oxygen which supports combustion. Calcium oxides.

11. TOXICOLOGICAL INFORMATION**Product Information**

Unknown acute toxicity	0% of the mixture consists of ingredient(s) of unknown toxicity
LD50 Oral	> 5 g/kg (rat)
LD50 Dermal	> 10 g/kg (rat)
LC50 Inhalation	> 17 mg/L 1 hr (rat)
Serious eye damage/eye irritation	Corrosive. Risk of serious damage to eyes.
Skin corrosion/irritation	Non-irritating (rabbit). May cause skin irritation in susceptible persons.
Sensitization	No information available.

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation	NOAEL Oral Value
Calcium Hydroxide (1305-62-0)	7340 mg/kg (Rat)	> 2500 mg/kg (Rat)	> 6.04 mg/L (Rat) 4 h	

Information on toxicological effects

Symptoms	Dust is irritating eyes, nose, throat, and lungs.
<u>Delayed and immediate effects as well as chronic effects from short and long-term exposure</u>	
Chronic toxicity	No known effect.
Carcinogenicity	There are no known carcinogenic chemicals in this product.
Mutagenicity	This product is not recognized as mutagenic by Research Agencies
Reproductive toxicity	This product is not recognized as reprotox by Research Agencies.
STOT - single exposure	May cause respiratory irritation.
STOT - repeated exposure	No information available.

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Target organ effects Respiratory System.
Aspiration hazard No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Persistence and degradability Biodegradability does not pertain to inorganic substances.

Bioaccumulation Does not bioaccumulate.

Mobility No information available.

Other Adverse Effects None known.

13. DISPOSAL CONSIDERATIONS

Waste disposal methods This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261). Dispose of in accordance with local regulations.

US EPA Waste Number D001.

Contaminated Packaging Empty remaining contents. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

DOT

UN/ID no 1457
Proper Shipping Name CALCIUM PEROXIDE MIXTURE
Hazard class 5.1
Packing Group II

TDG

UN/ID no 1457
Proper Shipping Name CALCIUM PEROXIDE MIXTURE
Hazard class 5.1
Packing Group II

ICAO/IATA

UN/ID no 1457
Proper Shipping Name CALCIUM PEROXIDE MIXTURE
Hazard class 5.1
Packing Group II

IMDG/IMO

UN/ID no 1457
Proper Shipping Name CALCIUM PEROXIDE MIXTURE
Hazard class 5.1
Packing Group II

UN/ID no 1457

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Proper Shipping Name	CALCIUM PEROXIDE MIXTURE
Hazard class	5.1
Packing Group	II
<u>ADR/RID</u>	
UN/ID no	UN 1457
Proper Shipping Name	CALCIUM PEROXIDE MIXTURE
Hazard class	5.1
Packing Group	II

OTHER INFORMATION This material is shipped in 25 lb. plastic pails, and 30 lb. and 100 lb. fiber drums.

15. REGULATORY INFORMATION

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

This product has the following hazards that are reportable under The Emergency Planning and Community Right-to-Know rule (EPCRA Tier II):

- Oxidizer
- Serious eye damage/eye irritation
- Specific Target Organ Toxicity (STOT) - Single Exposure

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA/EPCRA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

U.S. State Right-to-Know Regulations

This product contains the following substances regulated under state Right-to-Know laws:

Chemical name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Calcium Peroxide		X			
Calcium Hydroxide	X	X	X		X

California Proposition 65

This product does not contain any Proposition 65 chemicals

CANADA

Environmental Emergencies

This product contains no substances listed under Canada's Environmental Emergency regulations.

Canadian National Pollutant Release Inventory

This product contains no substances reportable under Canada's National Pollutant Release Inventory regulations.

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International Inventories

Chemical name	TSCA (United States)	DSL (Canada)	EINECS/EL INCS (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)	NZIoC (New Zealand)
Calcium Peroxide 1305-79-9	X	X	215-139-4	X	X	X	X	X	X
Calcium Hydroxide 1305-62-0	X	X	215-137-3	X	X	X	X	X	X

All ingredients are directly listed on the active TSCA Inventory

Mexico

Mexico - Grade

Moderate risk, Grade 2

16. OTHER INFORMATION

NFPA	Health Hazards 2	Flammability 0	Stability 1	Special Hazards OX
HMIS	Health Hazards 2	Flammability 0	Physical hazard 1	Special precautions J

NFPA/HMIS Ratings Legend

Special Hazards: OX = Oxidizer

Protection=J (Safety goggles, gloves, apron, combination dust and vapor respirator)

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2022-05-21

Revision note

SDS sections updated, 2.

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Prepared By:

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End of Safety Data Sheet