

SAFETY DATA SHEET

Classified in accordance with 29 CFR 1910.1200

1. Identification

Product identifier: Calcium Peroxide

Other means of identification

None.

Recommended restrictions

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

Restrictions on use: Not known.

Manufacturer/Importer/Distributor Information

Company Name : Evonik Corporation
2 Turner Place
Piscataway, NJ 08854
USA

Telephone : +1 732 981 5000

E-mail : product-regulatory-services@evonik.com

Emergency telephone number:

24-Hour Health : +1 800 424 9300 (CHEMTREC - US & CANADA)

Emergency : 800 681 9531 (CHEMTREC MEXICO)

+1 703 527 3887 (CHEMTREC WORLD)

2. Hazard(s) identification

Hazard Classification

Physical Hazards

Oxidizing solids Category 1

Health Hazards

Serious Eye Damage/Eye Irritation Category 1

Specific Target Organ Toxicity -
Single Exposure Category 3
(Respiratory tract
irritation.)

Label Elements

Hazard Symbol:



Signal Word:

Danger

Hazard Statement:

Causes serious eye damage.
 May cause respiratory irritation.
 May cause fire or explosion; strong oxidizer.

Precautionary Statements
Prevention:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep away from clothing, strong acids, bases, heavy metal salts and other reducing substances, and combustible materials. Take any precaution to avoid mixing with combustibles. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash face, hands and any exposed skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

Response:

IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing. Specific treatment (see supplemental first aid instructions on this label). IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage:

Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal:

Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.

Hazard(s) not otherwise classified (HNOC): None.

3. Composition/information on ingredients

Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%) [*]
Calcium peroxide		1305-79-9	75 - 86%
calcium dihydroxide		1305-62-0	14 - 25%

^{*} All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

The exact concentration has been withheld as a trade secret.

4. First-aid measures

Description of necessary first-aid measures
General information:

Remove contaminated or soaked clothing immediately and dispose of safely.

Product name: Calcium Peroxide

Inhalation:	In case product dust is released: Possible discomfort: cough, sneezing Move to fresh air.
Skin Contact:	Wash off immediately with soap and plenty of water.
Eye contact:	With eye held open, thoroughly rinse immediately with plenty of water for at least 10 minutes. Continue rinsing process with eye rinsing solution. Protect unharmed eye. Call ambulance. (Cue: caustic burn of the eyes) . Continue rinsing eye until arrival at ophthalmic hospital. Immediate further treatment in ophthalmic hospital/ ophthalmologist.
Ingestion:	If accidentally swallowed, rinse mouth thoroughly with water and afterwards, drink plenty of water. In case of discomfort, obtain medical attention.
Personal Protection for First-aid Responders:	No data available.

Most important symptoms and effects, both acute and delayed

Symptoms:	None known.
Hazards:	None known.

Indication of immediate medical attention and special treatment needed

Treatment:	If required, therapy of irritative effect. If substance has been swallowed: Early endoscopy in order to assess mucosa lesions in the oesophagus and stomach which may appear. If necessary, aspirate leftover substance.
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5. Fire-fighting measures**Suitable (and unsuitable) extinguishing media**

Suitable extinguishing media: The product is non-combustible. In case of fire in the surroundings: Water spray, foam, dry powder or carbon dioxide.

Unsuitable extinguishing media: No data available.

Special hazards arising from the substance or mixture: May be released in case of fire: toxic gases/vapours.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: Water used to extinguish fire should not enter drainage systems, soil or stretches of water. Ensure there are sufficient retaining facilities for water used to extinguish fire. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for fire-fighters: In case of fire: wear a self contained respiratory apparatus

6. Accidental release measures

Product name: Calcium Peroxide

Personal precautions, protective equipment and emergency procedures:	Use personal protective equipment. Avoid contact with skin and eyes.
Accidental release measures:	No data available.
Methods and material for containment and cleaning up:	Use mechanical handling equipment. Transfer into suitable containers. To be disposed of in compliance with existing regulations.
Environmental Precautions:	Do not allow entrance in sewage water, soil stretches of water, groundwater, drainage systems.

7. Handling and storage

Handling

Technical measures (e.g. Local and general ventilation):	No data available.
Safe handling advice:	Do not breathe dust or vapor. Avoid contact with skin and eyes.
Contact avoidance measures:	No data available.

Storage

Safe storage conditions:	Avoid humidity and water. Incompatible with strong acids and bases. Normal measures for preventive fire protection.
Safe packaging materials:	No data available.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
calcium dihydroxide	TWA	5 mg/m ³	US. ACGIH Threshold Limit Values, as amended (03 2016)
	REL	5 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010)
calcium dihydroxide - Total dust.	PEL	15 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (03 2016)
calcium dihydroxide - Respirable fraction.	PEL	5 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (03 2016)

Please refer to the latest edition of the appropriate source text and consult an industrial hygienist or similar professional, or local agencies, for further information.

Biological Limit Values

No biological exposure limits noted for the ingredient(s).

Appropriate Engineering Controls	No data available.
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Individual protection measures, such as personal protective equipment

Eye/face protection: Safety glasses with side shields

Skin Protection

Hand Protection: Material: Butyl rubber.
Break-through time: ≥ 480 min
Additional Information: Selection of protective gloves to meet the requirements of specific workplaces., The suitability for a specific workplace should be discussed with the producers of the protective gloves., The information is based on our own tests, references from the literature and information from glove manufacturers, or derived by analogy with similar materials., Be aware that in daily use the durability of a chemical resistant protective glove can be notably shorter than the break through time measured according to EN 374, due to the numerous outside influences (e.g. temperature)., The data about break through time/strength of material is not valid for undissolved solids/dust.

Skin and Body Protection: No data available.

Respiratory Protection: In case of dusts/vapours/aerosols being formed or if the limit values like TLV are exceeded: use respiratory equipment with suitable filter (filter type ABEK) or wear a self contained respiratory apparatus Use only respiratory protection equipment with CE-symbol including four digit test number. The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used. Note time limit for wearing respiratory protective equipment.

Hygiene measures: When using, do not eat, drink or smoke. Wash face and/or hands before break and end of work. Immediately remove contaminated clothing. Wash contaminated clothing before reuse.

9. Physical and chemical properties**Information on basic physical and chemical properties****Appearance**

Physical state: solid
Form: Powder
Color: from white to cream colour
Odor: Odorless
Odor Threshold: No data available.
Melting Point: No data available.
Boiling Point: Not applicable
Flammability: No data available.
Upper/lower limit on flammability or explosive limits

Product name: Calcium Peroxide

Explosive limit - upper:	No data available.
Explosive limit - lower:	No data available.
Flash Point:	No data available.
Autoignition Temperature:	No data available.
Decomposition Temperature:	527 °F/275 °C
pH:	11.4 - 11.7 (25 °C) 1% solution
Viscosity	
Dynamic viscosity:	No data available.
Kinematic viscosity:	No data available.
Flow Time:	No data available.
Solubility(ies)	
Solubility in Water:	Slightly Soluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Vapor pressure:	Not determined.
Relative density:	2.92
Density:	No data available.
Bulk density:	0.54 kg/m ³
Vapor density (air=1):	No data available.

Other information

Oxidizing properties:	The substance or mixture is classified as oxidizing with the category 1.
Minimum ignition temperature:	Not applicable
Molecular weight:	72.08 g/mol

10. Stability and reactivity

Reactivity:	No data available.
Chemical Stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	May produce small amounts of hydrogen in the presence of water, aqueous acids and lyes.
Conditions to avoid:	Protect from moisture. Heat.
Incompatible Materials:	Avoid contact with water, acid, leach.
Hazardous Decomposition Products:	Oxygen calcium oxide

11. Toxicological information**Information on toxicological effects****Information on likely routes of exposure**

Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.

Ingestion: No data available.

Acute toxicity (list all possible routes of exposure)

Oral

Product: Not classified for acute toxicity based on available data.

Dermal

Product: Acute toxicity estimate: > 5,000 mg/kg (Calculation method)
ATEmix: 12,500 mg/kg

Inhalation

Product: Not classified for acute toxicity based on available data.

Repeated dose toxicity

Product: No data available.

Skin Corrosion/Irritation

Product: An Expert Judgment stated that no classification is necessary based on present knowledge.

Serious Eye Damage/Eye Irritation

Product: Risk of serious damage to eyes.

Respiratory or Skin Sensitization

Product: No data available.

Components:

calcium dihydroxide Local Lymph Node Assay (LLNA), OECD 429 (Mouse): Not a skin sensitizer.

Carcinogenicity

Product: No data available.

Components:

calcium dihydroxide Not classified

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogens present or none present in regulated quantities

ACGIH: US.ACGIH Threshold Limit Values:

No carcinogens present or none present in regulated quantities

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogens present or none present in regulated quantities

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended:

No carcinogens present or none present in regulated quantities

Germ Cell Mutagenicity

In vitro

Product: No data available.

Components:

calcium dihydroxide Bacterial reverse mutation assay (OECD 471): negative

In vivo

Product: No data available.

Reproductive toxicity

Product: No data available.

Components:

Product name: Calcium Peroxide

calcium dihydroxide Not classified

Specific Target Organ Toxicity - Single Exposure**Product:** No data available.**Components:**

Calcium peroxide Category 3 with respiratory tract irritation.

calcium dihydroxide Category 3 with respiratory tract irritation.

Specific Target Organ Toxicity - Repeated Exposure**Product:** No data available.**Aspiration Hazard****Product:** No data available.**Components:**

Calcium peroxide Not applicable

calcium dihydroxide Not applicable

Information on health hazards**Other hazards****Product:** The properties of this product which are hazardous to health have been calculated as per regulation (EC) No. 1272/2008. See section 2 "Hazards Identification".;**12. Ecological information****Ecotoxicity:****Acute hazards to the aquatic environment:****Fish****Product:** No data available.**Components:**

calcium dihydroxide LC 50 (Oncorhynchus mykiss, 96 h): 50.6 mg/l Literature

Aquatic Invertebrates**Product:** No data available.**Components:**

calcium dihydroxide EC 50 (Daphnia magna, 48 h): 49.1 mg/l Literature

Toxicity to Aquatic Plants**Product:** No data available.**Components:**

calcium dihydroxide EC 50 (Algae (Pseudokirchneriella subcapitata), 72 h): 184.57 mg/l (OECD 201) Literature

Toxicity to microorganisms**Product:** No data available.**Chronic hazards to the aquatic environment:****Fish****Product:** No data available.**Aquatic Invertebrates****Product:** No data available.**Toxicity to Aquatic Plants****Product:** No data available.**Components:**

Product name: Calcium Peroxide

calcium dihydroxide NOEC (Algae (*Pseudokirchneriella subcapitata*), 72 h): 48 mg/l (OECD 201) Literature

Toxicity to microorganisms

Product: No data available.

Persistence and Degradability**Biodegradation**

Product: No data available.

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential**Bioconcentration Factor (BCF)**

Product: No data available.

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Mobility in soil:

Product No data available.

Results of PBT and vPvB assessment:

Product No data available.

Other adverse effects:**Other hazards**

Product: An Expert Judgment stated that no classification is necessary based on present knowledge.

Additional Information: No ecotoxicological studies are available on the mixture.

13. Disposal considerations

Disposal methods: With respect to local regulations, e.g. deposit in a suitable landfill site. EWC No.: waste not otherwise specified

Contaminated Packaging: Do not reuse empty containers and dispose of in accordance with the regulations issued by the appropriate local authorities. If there is product residue in the emptied container, follow directions for handling on the container's label. Incorrect disposal or reuse of this container is illegal and can be dangerous. Other countries: observe the national regulations.

14. Transport information**Domestic regulation****49 CFR**

UN/ID/NA number : UN 1457
Proper shipping name : Calcium peroxide

Class : 5.1

Product name: Calcium Peroxide

Packing group : II
Labels : 5.1
ERG Code : 140
Marine pollutant : no
Remarks : Keep separate from foodstuffs, luxury foods, feedstuffs

International Regulations**IATA-DGR**

UN/ID No. : UN 1457
Proper shipping name : Calcium peroxide
Class : 5.1
Packing group : II
Labels : 5.1
Packing instruction (cargo aircraft) : 562
Packing instruction (passenger aircraft) : 558

IMDG-Code

UN number or ID number : UN 1457
Proper shipping name : CALCIUM PEROXIDE

Class : 5.1
Packing group : II
Labels : 5.1
EmS Code : F-G, S-Q
Marine pollutant : no
Remarks : Keep separate from foodstuffs, luxury foods, feedstuffs
Stowage category C, Transport as dry as possible., IMDG
Code segregation group 16 - Peroxides, "Separated from"
permanganates and class 4.1., Stow "separated from" acids

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

15. Regulatory information**US Federal Regulations****TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

None present or none present in regulated quantities.

US. Toxic Substances Control Act (TSCA) Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721, Subpt E)

None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

None present or none present in regulated quantities.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Product name: Calcium Peroxide

Hazard categories

Oxidizer (liquid, solid or gas), Serious eye damage or eye irritation, Specific target organ toxicity (single or repeated exposure)

US. EPCRA (SARA Title III) Section 304 Extremely Hazardous Substances Reporting Quantities and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substances

None present or none present in regulated quantities.

US. EPCRA (SARA Title III Section 313 Toxic Chemical Release Inventory (TRI) Reporting

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

US State Regulations
US. California Proposition 65

No ingredient requiring a warning under CA Prop 65.

Inventory Status:

US TSCA Inventory:	Included on Inventory.	
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16. Other information, including date of preparation or last revision
HMIS Hazard ID

Health	3
Flammability	0
Physical Hazards	0
PERSONAL PROTECTION	B

B - Safety Glasses & Gloves

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; *Chronic health effect

Issue Date: 09/08/2022

Version #: 2.0

Further Information: No data available.

Revision Information

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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