

**Calcium hydroxide****21181-5KG**

Version 1.1

Revision Date 02/04/2022

Print Date 05/31/2023

**SECTION 1. IDENTIFICATION**

Product name : Calcium hydroxide

Number : 000000020684

Product Use Description : Laboratory chemicals

Manufacturer or supplier's details : Honeywell Specialty Chemicals Seelze GmbH  
Wunstorfer Straße 40  
Seelze, 30926

For more information call : 1-800-368-0050  
+1-231-726-3171(Monday-Friday, 9:00am-5:00pm)

In case of emergency call : **Medical: 1-800-498-5701 or +1-303-389-1414**  
: **Transportation (CHEMTREC): 1-800-424-9300 or**  
: **+1-703-527-3887**  
:  
: (24 hours/day, 7 days/week)

**SECTION 2. HAZARDS IDENTIFICATION****Emergency Overview**

Form : solid

Color : colourless

Odor : odourless

**Classification of the substance or mixture**

Classification of the substance or mixture : Skin irritation, Category 2  
Serious eye damage, Category 1  
Specific target organ toxicity - single exposure, Category 3,  
Respiratory system

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## GHS Label elements, including precautionary statements

Symbol(s)

:



Signal word

: Danger

Hazard statements

: Causes skin irritation.  
Causes serious eye damage.  
May cause respiratory irritation.

Precautionary statements

: **Prevention:**  
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
Wash 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 INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
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.  
If skin irritation occurs: Get medical advice/ attention.  
Take off contaminated clothing and wash before reuse.**Storage:**Store in a well-ventilated place. Keep container tightly closed.  
Store locked up.**Disposal:**

Dispose of contents/ container to an approved waste disposal plant.

**Carcinogenicity**

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP, IARC, or OSHA.

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**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**Formula : H<sub>2</sub>CaO<sub>2</sub>

Chemical nature : Substance

Chemical name	CAS-No.	Concentration
Calcium dihydroxide	1305-62-0	<=100.00 %

**SECTION 4. FIRST AID MEASURES**

- General advice : First aider needs to protect himself. Move out of dangerous area. Take off all contaminated clothing immediately.
- Inhalation : If inhaled, remove to fresh air. Call a physician if irritation develops or persists.
- Skin contact : After contact with skin, wash immediately with plenty of water. If symptoms persist, call a physician.
- Eye contact : Rinse thoroughly with plenty of water, also under the eyelids. Protect unharmed eye. Call a physician immediately.
- Ingestion : When swallowed, allow water to be drunk. Do NOT induce vomiting. Call a physician immediately.

**SECTION 5. FIREFIGHTING MEASURES**

- Suitable extinguishing media : Water spray  
Foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry powder
- Specific hazards during firefighting : The product itself does not burn.  
In case of fire hazardous decomposition products may be produced such as:

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Special protective equipment for firefighters : Wear self-contained breathing apparatus and protective suit.

Further information : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.  
Wear personal protective equipment. Unprotected persons must be kept away.  
Ensure adequate ventilation.  
Avoid dust formation.  
Avoid breathing dust.  
Avoid contact with skin, eyes and clothing.

Environmental precautions : Prevent further leakage or spillage if safe to do so.  
Should not be released into the environment.  
Do not flush into surface water or sanitary sewer system.  
Do not allow run-off from fire fighting to enter drains or water courses.

Methods and materials for containment and cleaning up : Use mechanical handling equipment.  
Sweep up and shovel into suitable containers for disposal.  
Dispose of in accordance with local regulations.

**SECTION 7. HANDLING AND STORAGE****Handling**

Precautions for safe handling : Wear personal protective equipment.  
Use only in well-ventilated areas.  
Avoid breathing dust.  
Avoid contact with skin, eyes and clothing.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

**Storage**

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Conditions for safe storage, including any incompatibilities : Keep containers tightly closed in a dry, cool and well-ventilated place.  
Store in original container.  
Protect from atmospheric moisture and water.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Protective measures : Ensure that eyewash stations and safety showers are close to the workstation location.  
Legal requirements are to be considered in regard of the selection, use and care of personal protective equipment.  
Avoid breathing dust.  
Avoid contact with skin, eyes and clothing.

Engineering measures : Use with local exhaust ventilation.

Eye protection : Safety goggles

Hand protection : Impervious gloves  
Gloves must be inspected prior to use.  
Replace when worn.

Skin and body protection : Impervious clothing  
Wear suitable protective equipment.

Respiratory protection : In case of insufficient ventilation wear suitable respiratory equipment.

Hygiene measures : Separate rooms are required for washing, showering and changing clothes.  
Regular cleaning of equipment, work area and clothing.  
Contaminated work clothing should not be allowed out of the workplace.

**Exposure Guidelines**

Components	CAS-No.	Value	Control parameters	Update	Basis
Calcium dihydroxide	1305-62-0	TWA : Time weighted average	5 mg/m3	2008	ACGIH:US. ACGIH Threshold Limit Values, as amended

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Calcium dihydroxide	1305-62-0	REL : Recomm ended exposure limit (REL):	5 mg/m3	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards, as amended
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Calcium dihydroxide	1305-62-0	PEL : Permissi ble exposure limit	15 mg/m3	02 2006	OSHA_TRANS:US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
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Further information	:	Form of exposure : Total dust.			
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Calcium dihydroxide	1305-62-0	PEL : Permissi ble exposure limit	5 mg/m3	02 2006	OSHA_TRANS:US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
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Further information	:	Form of exposure : Respirable fraction.			
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Calcium dihydroxide	1305-62-0	TWA : Time weighted average	5 mg/m3	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Physical state	: solid
Color	: colourless
Odor	: odourless
Odor threshold	: Note: No data available

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pH	: 12.0 - 13.0 at , 20 °C Note: Saturated solution
Melting point/range	: 580 °C
Boiling point/boiling range	: Note: Not applicable, Decomposes on heating.
Flash point	: Note: Not applicable
Evaporation rate	: Note: No data available
Flammability	: The product is not flammable.
Lower explosion limit	: Note: Not applicable
Upper explosion limit	: Note: Not applicable
Vapor pressure	: Note: No data available
Vapor density	: Note: No data available
Density	: 2.24 g/cm <sup>3</sup> at 20 °C
Water solubility	: 1.7 g/l at 20 °C
Partition coefficient: n-octanol/water	: Note: No data available
Ignition temperature	: Note: Not applicable
Auto-ignition temperature	: Note: not auto-flammable

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Viscosity, dynamic : Note: No data available

Viscosity, kinematic : Note: No data available

Molecular weight : 74.1 g/mol

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity : Not classified as a reactivity hazard.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : Hazardous polymerisation does not occur.  
Possible incompatibility with alkali sensitive materials.  
Exothermic reaction with strong acids.

Conditions to avoid : Protect from moisture.

Incompatible materials : Acids  
Maleic anhydride  
Phosphorus  
Nitro compounds

Hazardous decomposition products : In case of fire hazardous decomposition products may be produced such as:  
Calcium oxide

**SECTION 11. TOXICOLOGICAL INFORMATION**

Acute oral toxicity : LD50: 7,340 mg/kg  
Species: Rat

Acute inhalation toxicity : Note: No data available



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Acute dermal toxicity	: LD50: > 2,500 mg/kg
Skin irritation	: Species: Rabbit Result: Irritating to skin.
Eye irritation	: Species: Rabbit Result: Risk of serious damage to eyes. Method: OECD Test Guideline 405
Sensitisation	: Note: No data available
Genotoxicity in vitro	: Note: No data available
Further information	: Note: Strong irritating effect on the respiratory tract and the lungs.

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity effects**

Toxicity to fish	: LC50: 160 mg/l Exposure time: 96 h Species: Gambusia affinis (Mosquito fish)
	: LC50: 50.6 mg/l Exposure time: 96 h Species: Oncorhynchus mykiss (rainbow trout) Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	: EC50: 49.1 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea) Method: OECD Test Guideline 202 Note: No data available

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Toxicity to algae : EC50: 185 mg/l  
Exposure time: 72 h  
Species: Pseudokirchneriella subcapitata (green algae)  
Method: OECD Test Guideline 201

: NOEC: 48 mg/l  
Exposure time: 72 h  
Species: Pseudokirchneriella subcapitata (green algae)  
Method: OECD Test Guideline 201

Toxicity to bacteria : EC20: 229.2 mg/l  
Species: activated sludge  
Method: OECD Test Guideline 209

**Elimination information (persistence and degradability)**

Biodegradability : Note: The methods for determining the biological degradability are not applicable to inorganic substances.

**Further information on ecology**

Additional ecological information : None.

**SECTION 13. DISPOSAL CONSIDERATIONS**

Disposal methods : Observe all Federal, State, and Local Environmental regulations.

**SECTION 14. TRANSPORT INFORMATION**

**DOT** Not dangerous goods

**TDG** Not dangerous goods

**IATA** Not dangerous goods

**IMDG** Not dangerous goods

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**SECTION 15. REGULATORY INFORMATION****Inventories**

US. Toxic Substances Control Act : On TSCA Inventory

Australia. Industrial Chemicals Act (AICC), as amended : On the inventory, or in compliance with the inventory

Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL) : All components of this product are on the Canadian DSL

Japan. Kashin-Hou Law List : On the inventory, or in compliance with the inventory

Korea. Existing Chemicals Inventory (KECI) : On the inventory, or in compliance with the inventory

Philippines. Inventory of Chemicals and Chemical Substances (PICCS) : On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances (IECSC) : On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand : On the inventory, or in compliance with the inventory

**National regulatory information**

**SARA 302 Components** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis)

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reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards** : Acute Health Hazard**California Prop. 65** : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.**Massachusetts RTK** : Calcium dihydroxide 1305-62-0**New Jersey RTK** : Calcium dihydroxide 1305-62-0**Pennsylvania RTK** : Calcium dihydroxide 1305-62-0

## SECTION 16. OTHER INFORMATION

	HMIS III	NFPA
Health hazard	: 3	3
Flammability	: 0	0
Physical Hazard	: 0	
Instability	:	0

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

**Further information**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user. This information should not constitute a guarantee for any specific product properties.

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

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Previous Issue Date: 10/07/2016

Prepared by Honeywell Performance Materials and Technologies Product Stewardship Group