

SECTION 1: Identification of the substance/mixture

1.1. Product identifier

| | |
|------------------|------------------------------|
| Product form | : Substance |
| Substance name | : Calcium Hydroxide |
| Formula | : Ca(OH) ₂ |
| Molecular weight | : 74.09 g/mol |
| CAS No. | : 1305-62-0 |
| Product code | : LW-CAOH |
| Synonyms | : Slaked lime, Pickling lime |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|------------------------------|---|
| Use of the substance/mixture | : Laboratory chemicals, Synthesis of substances |
|------------------------------|---|

1.3. Emergency telephone number

| | |
|------------------|---|
| Emergency number | : 1.800.424.9300 (USA) +1.703.527.3887 (INT) |
|------------------|---|

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Skin irritation (Category 2), H315

Serious eye damage (Category 1), H318

Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

Acute aquatic toxicity (Category 3), H402

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2. GHS Label elements, including precautionary statements

Pictogram : 

Signal word : Danger

Hazard statement(s)

H315 : Causes serious eye irritation.

H318 : Causes serious eye damage.

H335 : May cause respiratory irritation.

H402 : Harmful to aquatic life.

Precautionary statement(s)

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| | |
|---------------------------|---|
| P261 | : Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. |
| P264 | : Wash skin thoroughly after handling. |
| P271 | : Use only outdoors or in a well-ventilated area. |
| P273 | : Avoid release to the environment. |
| P280 | : Wear eye protection/ face protection. |
| P280 | : Wear protective gloves. |
| P302 + P352 | : IF ON SKIN: Wash with plenty of soap and water. |
| P304 + P340 + P312 | : IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell. |
| P305 + P351 + P338 + P310 | : 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 or doctor/ physician. |
| P332 + P313 | : If skin irritation occurs: Get medical advice/ attention. |
| P362 | : Take off contaminated clothing and wash before reuse. |
| P403 + P233 | : Store in a well-ventilated place. Keep container tightly closed. |
| P405 | : Store locked up. |
| P501 | : Dispose of contents/ container to an approved waste disposal plant. |

2.3. Hazards not otherwise classified (HNOC) or not covered by GHS

none

SECTION 3: Composition/information on ingredients

3.1. Substances

Hazardous components

| Component | Classification | Concentration |
|---------------------|---|---------------|
| Calcium dihydroxide | Skin Irrit. 2; Eye Dam. 1; STOT SE 3; Aquatic Acute 3; H315, H318, H335, H402 | <= 100 % |

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: Description of first aid measures

4.1. Description of first aid measures

| | |
|----------------|---|
| General advice | : Consult a physician. Show this safety data sheet to the doctor in attendance. |
|----------------|---|

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- First-aid measures after inhalation : If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
- First-aid measures after skin contact : Wash off with soap and plenty of water. Consult a physician.
- First-aid measures after eye contact : Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
- First-aid measures after ingestion : Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2. Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.3. Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Calcium oxide

5.3. Advice for firefighters

Wear self-contained breathing apparatus for fire-fighting if necessary.

5.4. More Information

no data available

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

For personal protection see section 8.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3. Methods and material for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4. Reference to other sections

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For disposal see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.

Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Keep in a dry place.

Storage class (TRGS 510): Non Combustible Solids

7.3. Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Components with workplace control parameters

| Component | CAS-No. | Value | Control parameters | Basis |
|---------------------|-----------|---|-----------------------------|--|
| Calcium dihydroxide | 1305-62-0 | TWA | 5 mg/m ³ | USA. ACGIH Threshold Limit Values (TLV) |
| | Remarks | Upper Respiratory Tract irritation Eye irritation Skin irritation | | |
| | | TWA | 5.000000 mg/m ³ | USA. ACGIH Threshold Limit Values (TLV) |
| | | Upper Respiratory Tract irritation Eye irritation Skin irritation | | |
| | | TWA | 15.000000 mg/m ³ | USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants |

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| | | | | |
|--|--|-----|-------------------|--|
| | | TWA | 5.000000 mg/m3 | USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants |
| | | TWA | 5.000000 mg/m3 | USA. NIOSH Recommended Exposure Limits |

8.2. Exposure controls

Appropriate engineering controls : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.3. Personal protective equipment

Eye protection : Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin Protection : Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method:

EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body protection : Complete suit protecting against chemicals, The type of protective equipment must be selected according to the

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| | |
|---------------------------------|---|
| | concentration and amount of the dangerous substance at the specific workplace. |
| Respiratory protection | : Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). |
| Environmental exposure controls | : Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--|----------------------------------|
| Appearance | : Form: powder Color: white |
| Odor | : No data available |
| Odor Threshold | : No data available |
| pH | : 12.4 - 12.6 at 20 °C (68 °F) |
| Melting point/freezing point | : ≥ 450 °C (≥ 842 °F) |
| Initial boiling point and boiling range | : No data available |
| Flash point | : No data available |
| Evaporation rate | : No data available |
| Flammability (solid, gas) | : No data available |
| Upper/lower flammability or explosive limits | : No data available |
| Vapor pressure | : No data available |
| Vapor density | : No data available |
| Relative density | : 2.24 g/mL at 25 °C (77 °F) |
| Water solubility | : 0.99 g/l at 20 °C (68 °F) |
| Partition coefficient: n-octanol/water | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Viscosity | : No data available |
| Explosive properties | : No data available |

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Oxidizing properties : The substance or mixture is not classified as oxidizing.

9.2. Other safety information

Bulk density : 200 - 800 kg/m³

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

No data available

10.5. Incompatible materials

Strong acids

10.6. Hazardous decomposition products

Other decomposition products - No data available

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : LD50 Oral - Rat - 7,340 mg/kg

Inhalation: No data available

No data available

Skin corrosion/irritation : Skin - Rabbit

Result: Irritating to skin.

(OECD Test Guideline 404)

Serious eye damage/irritation : Eyes - Rabbit

Result: Severe eye irritation

(OECD Test Guideline 405)

Respiratory or skin sensitization : No data available

Germ cell mutagenicity : No data available

Carcinogenicity

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| | |
|--|---|
| IARC: | : No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. |
| ACGIH | : No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH. |
| NTP: | : 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. |
| OSHA: | : No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. |
| Reproductive toxicity | : Inhalation - May cause respiratory irritation. |
| Specific target organ toxicity (single exposure) | : No data available |
| Specific target organ toxicity (repeated exposure) | : No data available |
| Aspiration hazard | : No data available |
| Additional Information | : RTECS: EW2800000 |

SECTION 12: Ecological information

12.1. Toxicity

| | |
|---|--|
| Toxicity to fish | : LC50 - Clarias gariepinus - 33.884 mg/l - 96 h |
| Toxicity to daphnia and other aquatic invertebrates | : EC50 - Pseudokirchneriella subcapitata (green algae) - 184.6 mg/l - 72 h (OECD Test Guideline 201) |

12.2. Persistence and degradability : The methods for determining biodegradability are not applicable to inorganic substances.

12.3. Bioaccumulative potential : Does not bioaccumulate.

12.4. Mobility in soil : No data available

12.5. Results of PBT and vPvB assessment : PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6. Other adverse effects : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Harmful to aquatic life.

SECTION 13: Disposal considerations

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13.1. Waste treatment methods

- Product : Offer surplus and non-recyclable solutions to a licensed disposal company.
- Contaminated Packaging : Dispose of as unused product.

SECTION 14: Transport information

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION 15: 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) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute Health Hazard

Massachusetts Right To Know Components

| Calcium dihydroxide | CAS-No. | Revision Date |
|---------------------|-----------|---------------|
| | 1305-62-0 | 1994-04-01 |

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

| Calcium dihydroxide | CAS-No. | Revision Date |
|---------------------|-----------|---------------|
| | 1305-62-0 | 1994-04-01 |

New Jersey Right To Know Components

| Calcium dihydroxide | CAS-No. | Revision Date |
|---------------------|-----------|---------------|
| | 1305-62-0 | 1994-04-01 |

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

| | | |
|---------------|---|--|
| Aquatic Acute | : | Acute aquatic toxicity |
| Eye Dam. | : | Serious eye damage |
| H315 | : | Causes skin irritation. |
| H318 | : | Causes serious eye damage. |
| H335 | : | May cause respiratory irritation. |
| H402 | : | Harmful to aquatic life. |
| Skin Irrit. | : | Skin irritation |
| STOT SE | : | Specific target organ toxicity - single exposure |

HMIS Rating

| | | |
|-----------------------|---|---|
| Health Hazard | : | 2 |
| Chronic Health Hazard | : | |
| Flammability | : | 0 |
| Physical Hazard | : | 0 |

NFPA Rating

| | | |
|-------------------|---|---|
| Health hazard | : | 2 |
| Fire Hazard | : | 0 |
| Reactivity Hazard | : | 0 |

Further Information

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