SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form: Substance
Substance name: Calcium Hydroxide
EC-No.: 215-137-3
CAS-No.: 1305-62-0
Formula: Ca(OH)$_2$

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

1.2.1. Relevant identified uses

Use of the substance/mixture: Nutrient; Dietary Supplement

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Manufacturer: Jost Chemical Co.
8150 Lackland Rd.
63114 Saint Louis, Missouri
T 314-428-4300 - F 314-428-4366
sds@jostchemical.com - www.jostchemical.com

Distributor: JOST CHEMICAL EUROPE SPRL
rue du Bois Portal n° 30/1-3
B - 5300 Andenne - BELGIQUE
T +32 85-552655 - F +32 85-552654
info@jostchemical.com

1.4. Emergency telephone number

Emergency number: For Hazardous Materials [or Dangerous Goods] Incident Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night
United States and Canada: 1-800-424-9300 / +1 703-527-3887
Global: +1 703-741-5970

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture


Skin corrosion/irritation, Category 1A: H314
Specific target organ toxicity — Single exposure, Category 3: H335
Respiratory tract irritation

Full text of H statements: see section 16

Adverse physicochemical, human health and environmental effects
No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP):

GHS05  GHS07

Signal word (CLP): Danger

Hazard statements (CLP):
H314 - Causes severe skin burns and eye damage.
H335 - May cause respiratory irritation.
**Calcium Hydroxide**

**Safety Data Sheet**

according to Regulation (EC) No. 453/2010

---

**Precautionary statements (CLP):**

- P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
- P264 - Wash hands thoroughly after handling.
- P271 - Use only outdoors or in a well-ventilated area.
- P280 - Wear protective gloves, eye protection, face protection.
- P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
- P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- 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.
- P312 - Call a POISON CENTRE or doctor if you feel unwell.
- P321 - Specific treatment (see supplemental first aid instruction on this label).
- P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
- P405 - Store locked up.
- P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

**2.3. Other hazards**

Other hazards not contributing to the classification: None under normal conditions.

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII.

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII.

---

**SECTION 3: Composition/information on ingredients**

**3.1. Substances**

**Name**

Calcium Hydroxide

**Substance type**: Mono-constituent

**Product identifier**

- CAS-No.: 1305-62-0
- EC-No.: 215-137-3

Full text of H-statements: see section 16.

---

**3.2. Mixtures**

Not applicable.

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**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

First-aid measures general:

- Check the vital functions. Unconscious: maintain adequate airway and respiration.
- Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation.
- Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital. Call a poison center or a doctor if you feel unwell.

First-aid measures after inhalation:

- Remove person to fresh air and keep comfortable for breathing. Remove the victim into fresh air.
- Respiratory problems: consult a doctor/mechanical ventilation.
- Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital. Call a poison center or a doctor if you feel unwell.

First-aid measures after skin contact:

- Wash immediately with lots of water. Take victim to a doctor if irritation persists. In case of burns: Do not apply (chemical) neutralizing agents. Do not remove clothing if it sticks to the skin. Cover wounds with sterile bandage. Consult a doctor/mechanical ventilation. If burned surface > 10%: take victim to hospital. Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact:

- Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply neutralizing agents. Take victim to an ophthalmologist. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion:

- Ingestion of large quantities: immediately to hospital. Take the container/vomit to the doctor/hospital. Call a poison center or a doctor if you feel unwell.

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

**Symptoms/effects after inhalation**: AFTER INHALATION OF DUST: Coughing. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Respiratory difficulties. May cause respiratory irritation.

**Symptoms/effects after skin contact**: Red skin. Tingling/irritation of the skin. FOLLOWING SYMPTOMS MAY APPEAR LATER: Blisters. ON CONTINUOUS EXPOSURE/CONTACT: Caustic burns/corrosion of the skin.

**Symptoms/effects after eye contact**: Corrosion of the eye tissue. Serious damage to eyes.


**Chronic symptoms**: ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Skin rash/inflammation.
4.3. Indication of any immediate medical attention and special treatment needed
Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

5.2. Special hazards arising from the substance or mixture
Fire hazard: DIRECT FIRE HAZARD: Non combustible. INDIRECT FIRE HAZARD: Reactions involving a fire hazard: see "Reactivity Hazard".
Explosion hazard: INDIRECT EXPLOSION HAZARD: Reactions with explosion hazards: see "Reactivity Hazard".
Hazardous decomposition products in case of fire: Toxic fumes may be released.

5.3. Advice for firefighters
Firefighting instructions: Cool down the containers exposed to heat with a water spray.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel
Measures in case of dust release: In case of dust production: keep upwind. Dust production: have neighbourhood close doors and windows.

6.1.2. For emergency responders
Protective equipment: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
For containment: Contain released product, pump into suitable containers. Plug the leak, cut off the supply. Knock down/dilute dust cloud with water spray. Hazardous reaction: measure explosive gas-air mixture. Reaction: dilute combustible gas/vapour with water curtain.
Methods for cleaning up: Mechanically recover the product. Stop dust cloud by covering with sand/earth. Scoop solid spill into closing containers. Small quantities of liquid spill: neutralize with acid solution. Wash away neutralized product with plentiful water. Wash clothing and equipment after handling.
Other information: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections
For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling: Avoid raising dust. Keep away from naked flames/heat. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Use corrosionproof equipment. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes. Wear personal protective equipment.

Hygiene measures: Observe strict hygiene. Keep container tightly closed. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities
Technical measures: Does not require any specific or particular technical measures.
Storage conditions: Store in a clean, dry warehouse in the original unopened containers. Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.
Incompatible materials: Acids. Fluorine.
Storage temperature: > 5 °C.
Heat and ignition sources
KEEP SUBSTANCE AWAY FROM: heat sources.

Information on mixed storage
KEEP SUBSTANCE AWAY FROM: organic materials. (strong) acids. amines. water/moisture.

Storage area
Store in a dry area. Keep container in a well-ventilated place. Meet the legal requirements.

Special rules on packaging
SPECIAL REQUIREMENTS: hermetical. watertight. dry. clean. correctly labelled. Secure fragile packagings in solid containers.

Packaging materials
SUITE MATERIAL: stainless steel. iron. paper. polyethylene. MATERIAL TO AVOID: aluminium. zinc.

7.3. Specific end use(s)
No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Calcium Hydroxide (1305-62-0)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DNEL/DMEL (Workers)</td>
<td></td>
</tr>
<tr>
<td>Acute - local effects, inhalation</td>
<td>4 mg/m³</td>
</tr>
<tr>
<td>Long-term - local effects, inhalation</td>
<td>1 mg/m³</td>
</tr>
<tr>
<td>DNEL/DMEL (General population)</td>
<td></td>
</tr>
<tr>
<td>Acute - local effects, inhalation</td>
<td>4 mg/m³</td>
</tr>
<tr>
<td>Long-term - local effects, inhalation</td>
<td>1 mg/m³</td>
</tr>
<tr>
<td>PNEC (Water)</td>
<td></td>
</tr>
<tr>
<td>PNEC aqua (freshwater)</td>
<td>0.49 mg/l</td>
</tr>
<tr>
<td>PNEC aqua (marine water)</td>
<td>0.32 mg/l</td>
</tr>
<tr>
<td>PNEC (Soil)</td>
<td></td>
</tr>
<tr>
<td>PNEC soil</td>
<td>1080 mg/kg dwt</td>
</tr>
<tr>
<td>PNEC (STP)</td>
<td></td>
</tr>
<tr>
<td>PNEC sewage treatment plant</td>
<td>3 mg/l</td>
</tr>
<tr>
<td>DNEL</td>
<td>4 mg/m³ (Acute - local effects, inhalation)</td>
</tr>
<tr>
<td>PNEC</td>
<td>0.49 mg/l (aqua, freshwater)</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Appropriate engineering controls:
Ensure good ventilation of the work station.

Personal protective equipment:
Dust production: dust mask with filter type P2. In case of dust production: protective goggles. Protective clothing. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Materials for protective clothing:
GIVE EXCELLENT RESISTANCE: natural rubber. neoprene. nitrile rubber. PVC. GIVE GOOD RESISTANCE: butyl rubber. chloroprene rubber. chlorosulfonated polyethylene. viton

Hand protection:
Gloves

Eye protection:
Face shield. In case of dust production: protective goggles. Safety glasses

Skin and body protection:
Protective clothing. In case of dust production: head/neck protection. In case of dust production: dustproof clothing

Respiratory protection:
Dust production: dust mask with filter type P2
Calcium Hydroxide
Safety Data Sheet
according to Regulation (EC) No. 453/2010

Personal protective equipment symbol(s):

Environmental exposure controls:
Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Fine, white powder.</td>
</tr>
<tr>
<td>Molecular mass</td>
<td>74.1 g/mol</td>
</tr>
<tr>
<td>Colour</td>
<td>White to light yellow. Unpurified: grey.</td>
</tr>
<tr>
<td>Odour</td>
<td>Characteristic odour.</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>12.4 (0.2 %)</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>&gt; 450 °C (Test data)</td>
</tr>
<tr>
<td>Freezing point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Boiling point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable (solid)</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>&gt; 400 °C</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>580 °C</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Non flammable.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>&lt; 0.1 hPa</td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>Not applicable (solid)</td>
</tr>
<tr>
<td>Relative density</td>
<td>2.22 (20 °C, Test data)</td>
</tr>
<tr>
<td>Density</td>
<td>2220 kg/m³ (20 °C)</td>
</tr>
<tr>
<td>Solubility</td>
<td>Poorly soluble in water. Substance sinks in water. Soluble in glycerol. Soluble in acids. Soluble in ammoniumchloride. Water: 0.2 g/100ml</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

9.2. Other information

VOC content: 0 %
Other properties: Hygroscopic. Substance has basic reaction.

SECTION 10: Stability and reactivity

10.1. Reactivity
Absorbs the atmospheric CO2. Reacts violently with (some) acids: release of heat. Decomposes in moist air.

10.2. Chemical stability
Absorbs the atmospheric CO2. Unstable on exposure to air. Unstable on exposure to moisture. Hygroscopic.

10.3. Possibility of hazardous reactions
No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid
None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials
Acids, Fluorine.

10.6. Hazardous decomposition products
Reacts on exposure to water (moisture) with (some) metals: release of highly flammable gases/vapours (hydrogen).

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity (oral): Not classified
Acute toxicity (dermal): Not classified
Acute toxicity (inhalation): Not classified

### Calcium Hydroxide (1305-62-0)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>&gt; 2000 mg/kg bodyweight (OECD 425: Acute Oral Toxicity: Up-and-Down Procedure, Rat, Female, Experimental value)</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>&gt; 2500 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rabbit, Male/female, Experimental value)</td>
</tr>
</tbody>
</table>

Causes serious eye damage.
Serious eye damage/irritation: Causes skin irritation.
Respiratory or skin sensitisation: Not classified (Lack of data)
Germ cell mutagenicity: Not classified (Lack of data)
Carcinogenicity: Not classified (Lack of data)
Reproductive toxicity: Not classified (Lack of data)
STOT-single exposure: May cause respiratory irritation. (Lack of data)
STOT-repeated exposure: Not classified (Lack of data)
Aspiration hazard: Not classified (Lack of data)
Potential adverse human health effects and symptoms: Non-toxic if swallowed (LD50 oral, rat > 5000 mg/kg). Causes skin irritation. May cause respiratory irritation. Causes serious eye damage.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general: Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008.
Dangerous for the environment: Not classified
Chronic aquatic toxicity: Not classified

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>50.6 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value)</td>
</tr>
<tr>
<td>LC50 other aquatic organisms 1</td>
<td>50.6 mg/l (96 h; Oncorhynchus mykiss)</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>49.1 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)</td>
</tr>
<tr>
<td>EC50 72h algae (1)</td>
<td>184.57 mg/l (OECD 201: Alga, Growth Inhibition Test, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value)</td>
</tr>
<tr>
<td>ErC50 (algae)</td>
<td>184.57 mg/l (72h; Pseudokirchneriella subcapitata)</td>
</tr>
<tr>
<td>NOEC (acute)</td>
<td>33.3 mg/l (48h; Daphnia magna)</td>
</tr>
<tr>
<td>NOEC (chronic)</td>
<td>48 mg/l (72h; Pseudokirchneriella subcapitata)</td>
</tr>
</tbody>
</table>

#### 12.2. Persistence and degradability

Biodegradability: not applicable.
Biochemical oxygen demand (BOD): Not applicable
Chemical oxygen demand (COD): Not applicable
ThOD: Not applicable
ThOD (% of ThOD): Not applicable

#### 12.3. Bioaccumulative potential

Bioaccumulative potential: Not bioaccumulative.
### 12.4. Mobility in soil

<table>
<thead>
<tr>
<th>Calcium Hydroxide (1305-62-0)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecology - soil</td>
<td>Adsorbs into the soil.</td>
</tr>
</tbody>
</table>

### 12.5. Results of PBT and vPvB assessment

<table>
<thead>
<tr>
<th>Calcium Hydroxide (1305-62-0)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII</td>
<td></td>
</tr>
<tr>
<td>This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII</td>
<td></td>
</tr>
</tbody>
</table>

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Regional legislation (waste) | LWCA (the Netherlands): KGA category 05.
Waste treatment methods | Dispose of contents/container in accordance with licensed collector’s sorting instructions.
Product/Packaging disposal recommendations | Treat using the best available techniques before discharge into drains or the aquatic environment. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Should not be landfilled with household waste. Recycle/reuse. Remove to an authorized dump (Class I). Remove for physico-chemical/biological treatment.

## SECTION 14: Transport information

### 14.1. UN number

| UN-No. (ADR) | Not applicable |
| UN-No. (IMDG) | Not applicable |
| UN-No. (IATA) | Not applicable |
| UN-No. (ADN) | Not applicable |
| UN-No. (RID) | Not applicable |

### 14.2. UN proper shipping name

| Proper Shipping Name (ADR) | Not regulated for transport |
| Proper Shipping Name (IMDG) | Not regulated for transport |
| Proper Shipping Name (IATA) | Not regulated for transport |
| Proper Shipping Name (ADN) | Not regulated for transport |
| Proper Shipping Name (RID) | Not regulated for transport |

### 14.3. Transport hazard class(es)

| ADR | Transport hazard class(es) (ADR) | Not applicable |
| IMDG | Transport hazard class(es) (IMDG) | Not applicable |
| IATA | Transport hazard class(es) (IATA) | Not applicable |
| ADN | Transport hazard class(es) (ADN) | Not applicable |
| RID | Transport hazard class(es) (RID) | Not applicable |

### 14.4. Packing group

| Packing group (ADR) | Not applicable |
| Packing group (IMDG) | Not applicable |
| Packing group (IATA) | Not applicable |
| Packing group (ADN) | Not applicable |
| Packing group (RID) | Not applicable |

### 14.5. Environmental hazards

Dangerous for the environment | No |
Calcium Hydroxide
Safety Data Sheet
according to Regulation (EC) No. 453/2010

Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user

Overland transport
Transport regulations (ADR) : Not subject

Transport by sea
Transport regulations (IMDG) : Not subject

Air transport
Transport regulations (IATA) : Not subject

Inland waterway transport
Transport regulations (ADN) : Not subject

Rail transport
Transport regulations (RID) : Not subject

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
Not applicable

SECTION 15: Regulatory information
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations
No REACH Annex XVII restrictions
Calcium Hydroxide is not on the REACH Candidate List
Calcium Hydroxide is not on the REACH Annex XIV List

VOC content : 0 %
Directive 2012/18/EU (SEVESO III)

15.1.2. National regulations
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on the Canadian DSL (Domestic Substances List)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. Chemical safety assessment
No additional information available

SECTION 16: Other information

Indication of changes:
This sheet was updated (refer to the date at the top of this page).

Full text of H- and EUH-statements:

| H314 | Causes severe skin burns and eye damage. |
| H335 | May cause respiratory irritation. |
| STOT SE 3 | Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation |
| Skin Corr. 1A | Skin corrosion/irritation, Category 1A |

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.