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 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 12.10.2022 / 0016  
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 Valid from: 12.10.2022  
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 SCHAEFER PRECAL® - CaO Calciumoxid

**Safety data sheet**  
**according to Regulation (EC) No 1907/2006, Annex II**

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

**1.1 Product identifier**

**SCHAEFER PRECAL® - CaO Calciumoxid**  
 Calcium oxide  
 Registration number (ECHA): 01-2119475325-36-XXXX  
 Index: ---  
 EINECS, ELINCS, NLP, REACH-IT List-No.: 215-138-9  
 CAS: 1305-78-8

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

The uses:  
 Biocidal active substance

Sector of use [SU]:  
 SU 1 - Agriculture, forestry, fishery  
 SU 2a - Mining, (without offshore industries)  
 SU 2b - Offshore industries  
 SU 3 - Industrial uses: Uses of substances as such or in preparations at industrial sites  
 SU 5 - Manufacture of textiles, leather, fur  
 SU 6a - Manufacture of wood and wood products  
 SU 6b - Manufacture of pulp, paper and paper products  
 SU 7 - Printing and reproduction of recorded media  
 SU 8 - Manufacture of bulk, large scale chemicals (including petroleum products)  
 SU 9 - Manufacture of fine chemicals  
 SU10 - Formulation (mixing) of preparations and/or re-packaging (excluding alloys)  
 SU11 - Manufacture of rubber products  
 SU12 - Manufacture of plastics products, including compounding and conversion  
 SU13 - Manufacture of other non-metallic mineral products, e.g. plasters, cement  
 SU14 - Manufacture of basic metals, including alloys  
 SU15 - Manufacture of fabricated metal products, except machinery and equipment  
 SU16 - Manufacture of computer, electronic and optical products, electrical equipment  
 SU17 - General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment.  
 SU18 - Manufacture of furniture  
 SU19 - Building and construction work  
 SU20 - Health services  
 SU21 - Consumer uses: Private households (=general public = consumers)  
 SU22 - Professional uses: Public domain (administration, education, entertainment, services, craftsmen)  
 SU23 - Electricity, steam, gas water supply and sewage treatment  
 SU24 - Scientific research and development  
 Chemical product category [PC]:  
 PC 1 - Adhesives, sealants  
 PC 2 - Adsorbents  
 PC 3 - Air care products  
 PC 7 - Base metals and alloys  
 PC 9a - Coatings and paints, thinners, paint removers  
 PC 9b - Fillers, putties, plasters, modelling clay  
 PC11 - Explosives  
 PC12 - Fertilizers  
 PC13 - Fuels  
 PC14 - Metal surface treatment products  
 PC15 - Non-metal-surface treatment products  
 PC16 - Heat transfer fluids  
 PC17 - Hydraulic fluids  
 PC18 - Ink and toners  
 PC19 - Removed from PC list and relocated in the technical function list  
 PC20 - Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents  
 PC21 - Laboratory chemicals  
 PC23 - Leather treatment products  
 PC24 - Lubricants, greases, release products  
 PC25 - Metal working fluids  
 PC26 - Paper and board treatment products  
 PC27 - Plant protection products  
 PC28 - Perfumes, fragrances  
 PC30 - Photo-chemicals  
 PC31 - Polishes and wax blends  
 PC32 - Polymer preparations and compounds  
 PC33 - Semiconductors  
 PC34 - Textile dyes, and impregnating products  
 PC35 - Washing and cleaning products  
 PC36 - Water softeners  
 PC37 - Water treatment chemicals  
 PC38 - Welding and soldering products, flux products  
 PC40 - Extraction agents  
 Process category [PROC]:  
 PROC 1 - Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.  
 PROC 2 - Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

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PROC 3 - Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition  
 PROC 4 - Chemical production where opportunity for exposure arises  
 PROC 5 - Mixing or blending in batch processes  
 PROC 6 - Calendaring operations  
 PROC 7 - Industrial spraying  
 PROC 8a - Transfer of substance or mixture (charging and discharging) at non-dedicated facilities  
 PROC 8b - Transfer of substance or mixture (charging and discharging) at dedicated facilities  
 PROC 9 - Transfer of substance or mixture into small containers (dedicated filling line, including weighing)  
 PROC10 - Roller application or brushing  
 PROC12 - Use of blowing agents in manufacture of foam  
 PROC13 - Treatment of articles by dipping and pouring  
 PROC14 - Tableting, compression, extrusion, pelletisation, granulation  
 PROC15 - Use a laboratory reagent.  
 PROC16 - Use of fuels  
 PROC17 - Lubrication at high energy conditions in metal working operation  
 PROC18 - General greasing/lubrication at high kinetic energy conditions  
 PROC19 - Manual activities involving hand contact  
 PROC21 - Low energy manipulation and handling of substances bound in/on materials or articles  
 PROC22 - Manufacturing and processing of minerals and/or metals at substantially elevated temperature  
 PROC23 - Open processing and transfer operations at substantially elevated temperature  
 PROC24 - High (mechanical) energy work-up of substances bound in /on materials and/or articles  
 PROC25 - Other hot work operations with metals  
 PROC26 - Handling of solid inorganic substances at ambient temperature  
 PROC27a - Production of metal powders (hot processes)  
 PROC27b - Production of metal powders (wet processes)  
 Article Categories [AC]:  
 AC 1 - Vehicles  
 AC 2 - Machinery, mechanical appliances, electrical/electronic articles  
 AC 3 - Electrical batteries and accumulators  
 AC 4 - Stone, plaster, cement, glass and ceramic articles  
 AC 5 - Fabrics, textiles and apparel  
 AC 6 - Leather articles  
 AC 7 - Metal articles  
 AC 8 - Paper articles  
 AC10 - Rubber articles  
 AC11 - Wood articles  
 AC13 - Plastic articles  
 Environmental Release Category [ERC]:  
 ERC 1 - Manufacture of the substance  
 ERC 2 - Formulation into mixture  
 ERC 3 - Formulation into solid matrix  
 ERC 4 - Use of non-reactive processing aid at industrial site (no inclusion into or onto article)  
 ERC 5 - Use at industrial site leading to inclusion into/onto article  
 ERC 6a - Use of intermediate  
 ERC 6b - Use of reactive processing aid at industrial site (no inclusion into or onto article)  
 ERC 6c - Use of monomer in polymerisation processes at industrial site (inclusion or not into/onto article)  
 ERC 6d - Use of reactive process regulators in polymerisation processes at industrial site (inclusion or not into/onto article)  
 ERC 7 - Use of functional fluid at industrial site  
 ERC 8a - Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)  
 ERC 8b - Widespread use of reactive processing aid (no inclusion into or onto article, indoor)  
**Uses advised against:**  
 Chemical product category [PC]:  
 PC 8 - Biocidal products

**1.3 Details of the supplier of the safety data sheet**

SCHAEFER KALK GmbH & Co. KG  
 Louise-Seher-Strasse 6  
 65582 Diez  
 Tel.: +49-6432-503-0  
 Fax: +49-6432-503-269  
 Email: info@schaeferkalk.de

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

**1.4 Emergency telephone number**

**Emergency information services / official advisory body:**

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**Telephone number of the company in case of emergencies:**

+49 (0) 700 / 24 112 112 (SKC)  
 +1 872 5888271 (SKC)

**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

**Classification according to Regulation (EC) 1272/2008 (CLP)**

Hazard class	Hazard category	Hazard statement
STOT SE	3	H335-May cause respiratory irritation.
Skin Irrit.	2	H315-Causes skin irritation.
Eye Dam.	1	H318-Causes serious eye damage.

**2.2 Label elements**

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**Labeling according to Regulation (EC) 1272/2008 (CLP)**



Calcium oxide  
 CAS: 1305-78-8, Index:--- EC: 215-138-9

**Danger**

H335-May cause respiratory irritation. H315-Causes skin irritation. H318-Causes serious eye damage.

P102-Keep out of reach of children.  
 P261-Avoid breathing dust. P280-Wear protective gloves / protective clothing and eye protection / face protection.  
 P302+P352-IF ON SKIN: Wash with plenty of water and soap. 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 / doctor.  
 P501-Dispose of contents / container in accordance with all local, regional, national and international laws.

**2.3 Other hazards**

No vPvB substance  
 No PBT substance  
 No substance with endocrine disrupting properties.

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

**3.1 Substances**

Calcium oxide	Substance for which an EU exposure limit value applies.
Registration number (REACH)	01-2119475325-36-XXXX
Index	---
EINECS, ELINCS, NLP, REACH-IT List-No.	215-138-9
CAS	1305-78-8
content %	
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335

**3.2 Mixtures**

n.a.

This is a substance with minor constituents of geological origin.  
 For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.  
 The substances named in this section are given with their actual, appropriate classification!  
 For substances that are listed in appendix VI, table 3.1 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

**SECTION 4: First aid measures**

**4.1 Description of first aid measures**

First-aiders should ensure they are protected!  
 Never pour anything into the mouth of an unconscious person!

**Inhalation**

Move source of dust or move affected person to fresh air. Obtain medical attention immediately.

**Skin contact**

Carefully and gently brush the contaminated body surfaces in order to remove all traces of product.  
 Wash affected area immediately with plenty of water for 15 to 20 minutes. Take off contaminated clothing.  
 If applicable, consult doctor if necessary.

**Eye contact**

Rinse eyes with special adsorption solution such as, for example, Previn or any other suitable eye wash solution for at least 3 minutes or at least with one litre.  
 If not at hand, rinse with water for 10 minutes. If symptoms persist, repeat the procedure. Visit an ophthalmologist.

**Ingestion**

Wash mouth with water and drink copious quantities of water. Do not induce vomiting. Seek medical advice immediately.

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

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.  
 In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

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

Eye-rinse bottle  
 No known delayed effects. Consult a physician for all exposures except for minor instances.

**SECTION 5: Firefighting measures**

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**5.1 Extinguishing media**

**Suitable extinguishing media**

The substance is not flammable, and non-combustible, it inhibits the spread of flame.  
 The product reacts with water and generates heat. This may cause risk to flammable material.  
 The product does not burn.  
 Adapt to the nature and extent of fire.  
 Extinguishment powder  
 Foam  
 CO<sub>2</sub>

**Unsuitable extinguishing media**

Avoid water and the humidification of the quicklime.

**5.2 Special hazards arising from the substance or mixture**

In case of fire the following can develop:  
None

**5.3 Advice for firefighters**

For personal protective equipment see Section 8.  
 Protective respirator with independent air supply.  
 Dispose of contaminated extinction water according to official regulations.

**SECTION 6: Accidental release measures**

**6.1 Personal precautions, protective equipment and emergency procedures**

**6.1.1 For non-emergency personnel**

In case of spillage or accidental release, wear personal protective equipment as specified in section 8 to prevent contamination.  
 Ensure sufficient ventilation, remove sources of ignition.  
 Avoid dust formation with solid or powder products.  
 Leave the danger zone if possible, use existing emergency plans if necessary.  
 Avoid contact with skin and eyes.  
 Avoid creating dust, ensure adequate ventilation or adequate respiratory protection (see Section 8).

**6.1.2 For emergency responders**

See section 8 for suitable protective equipment and material specifications.

**6.2 Environmental precautions**

Contain the spillage.  
 Keep the material dry if possible.  
 Cover area if possible to avoid unnecessary dust hazard.  
 Avoid uncontrolled spills to watercourses and drains (pH rising).  
 Inform the competent authorities when water or canalisation has been infiltrated.

**6.3 Methods and material for containment and cleaning up**

Keep the material dry if possible.  
 Pick up the product mechanically in a dry way. Use vacuum suction unit, or shovel into bags.

**6.4 Reference to other sections**

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

**SECTION 7: Handling and storage**

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

**7.1 Precautions for safe handling**

**7.1.1 General recommendations**

Avoid contact with skin and eyes.  
 Wear protective equipment (see section 8).  
 Keep dust levels to a minimum. Minimise dust generation. Enclose dust sources.  
 If applicable, suction measures at the workstation or on the processing machine necessary.  
 Handling systems should preferably be enclosed. When handling bags usual precautions should be paid to the risks outlined in the Council Directive 90/269/EEC.

**7.1.2 Notes on general hygiene measures at the workplace**

General hygiene measures for the handling of chemicals are applicable.  
 Wash hands before breaks and at end of work.  
 Keep away from food, drink and animal feedingstuffs.  
 Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

**7.2 Conditions for safe storage, including any incompatibilities**

Keep out of access to unauthorised individuals.  
 Not to be stored in gangways or stair wells.  
 Store product closed and only in original packing.  
 Store in a dry place.  
 Minimise contact with air and moisture. Bulk storage should be in purpose - designed silos.  
 Keep away from acids, significant quantities of paper, straw, and nitro compounds.  
 Keep out of the reach of children.  
 Do not use aluminium for transport or storage if there is a risk of contact with water.  
 Ensure sufficient ventilation.  
 Avoid build up of dust.

**7.3 Specific end use(s)**

No information available at present.

**SECTION 8: Exposure controls/personal protection**

**8.1 Control parameters**

(GB) Chemical Name	Calcium oxide		
WEL-TWA: 1 mg/m <sup>3</sup> (9) (WEL, EU)	WEL-STEL: 4 mg/m <sup>3</sup> (9) (WEL, EU)	---	
Monitoring procedures:	---		
BMGV: ---	Other information: ---		

**Calcium oxide**

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Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,37	mg/l	
	Environment - marine		PNEC	0,24	mg/l	
	Environment - soil		PNEC	817,4	mg/kg dry weight	
	Environment - sewage treatment plant		PNEC	2,27	mg/l	
Consumer	Human - inhalation	Short term, local effects	DNEL	4	mg/m3	
Consumer	Human - inhalation	Long term, local effects	DNEL	1	mg/m3	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	4	mg/m3	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	1	mg/m3	

WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany).  
 (8) = Inhalable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (9) = Respirable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (11) = Inhalable fraction (Directive 2004/37/CE). (12) = Inhalable fraction. Respirable fraction in those Member States that implement, on the date of the entry into force of this Directive, a biomonitoring system with a biological limit value not exceeding 0,002 mg Cd/g creatinine in urine (Directive 2004/37/CE). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period).  
 (8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.  
 \*\* = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.  
 (13) = The substance can cause sensitisation of the skin and of the respiratory tract (Directive 2004/37/CE), (14) = The substance can cause sensitisation of the skin (Directive 2004/37/CE).

## 8.2 Exposure controls

### 8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.  
 If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.  
 Applies only if maximum permissible exposure values are listed here.  
 Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques.  
 These are specified by e.g. EN 14042.  
 EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents".  
 Handling systems should preferably be enclosed or suitable ventilation installed to maintain atmospheric dust below the OES.

### 8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.  
 Wash hands before breaks and at end of work.  
 Keep away from food, drink and animal feedingstuffs.  
 Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

#### Eye/face protection:

Tight fitting protective goggles with side protection (EN 166).  
 Face protection (EN 166).  
 Do not wear contact lenses when handling this product.

#### Skin protection - Hand protection:

Nitrile-soaked cotton gloves with CE sign (EN ISO 374).  
 Protective hand cream recommended.

The breakthrough times determined in accordance with EN 16523-1 were not obtained under practical conditions.  
 The recommended maximum wearing time is 50% of breakthrough time.

#### Skin protection - Other:

Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).  
 Clothing fully covering skin.  
 Full length pants, long sleeved overalls, with close fittings at openings.  
 Wear acid-proof, resp. alkali-resistant and dust-tight shoes.  
 If heavily exposed daily, employees must shower, and if necessary use a barrier cream to protect exposed skin, particularly neck, face and wrists.

#### Respiratory protection:

Wear approved respiratory protection mask to EN 149 Category FFP2 (colour code white) or Airstream helmet for high exposure levels.  
 Observe wearing time limitations for respiratory protection equipment.

#### Thermal hazards:

If applicable, these are included in the individual protective measures (eye/face protection, skin protection, respiratory protection).  
 Selection of materials derived from glove manufacturer's indications.  
 Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.  
 Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.  
 In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.

### 8.2.3 Environmental exposure controls

All ventilation systems should be filtered before discharge to atmosphere.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state:	fine powder or lumpy
Physical state:	Solid
Colour:	Beige

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Colour:	White
Odour:	Odourless
Odour threshold:	Not applicable
Melting point/freezing point:	>450 °C (Regulation (EC) 440/2008 A.1. (MELTING/FREEZING TEMPERATURE))
Boiling point or initial boiling point and boiling range:	Not applicable
Flammability:	Not flammable (Regulation (EC) 440/2008 A.10. (FLAMMABILITY (SOLIDS)))
Lower explosion limit:	Does not apply to solids.
Upper explosion limit:	Does not apply to solids.
Flash point:	Does not apply to solids.
Auto-ignition temperature:	No
Decomposition temperature:	Not applicable
pH:	12,3 (20°C, saturated solution )
Kinematic viscosity:	Not applicable
Solubility:	1337,6 mg/l (Regulation (EC) 440/2008 A.6. (WATER SOLUBILITY))
Partition coefficient n-octanol/water (log value):	n.a.
Vapour pressure:	Not applicable
Density and/or relative density:	3,31 (Regulation (EC) 440/2008 A.3. (RELATIVE DENSITY), relative density )
Relative vapour density:	Not applicable
Particle characteristics:	There is no information available on this parameter.
<b>9.2 Other information</b>	
Explosives:	There is no information available on this parameter.
Oxidizing solids:	No

#### SECTION 10: Stability and reactivity

##### 10.1 Reactivity

See also Subsection 10.2 to 10.6.  
The product has not been tested.

##### 10.2 Chemical stability

See also Subsection 10.1 to 10.6.  
Stable with proper storage and handling.

##### 10.3 Possibility of hazardous reactions

See also Subsection 10.1 to 10.6.

##### 10.4 Conditions to avoid

Minimise exposure to air and moisture.

##### 10.5 Incompatible materials

Calcium oxide reacts exothermically with water to form Calcium hydroxide:  
 $\text{CaO} + \text{H}_2\text{O} \Rightarrow \text{Ca}(\text{OH})_2 + 1155 \text{ kJ/kg CaO}$   
 Calcium oxide reacts exothermically with acids to form Calcium salts.  
 Calcium oxide reacts with aluminium in the presence of moisture leading to the production of hydrogen:  
 $\text{CaO} + 2 \text{Al} + 7 \text{H}_2\text{O} \Rightarrow \text{Ca}[\text{Al}(\text{OH})_4]_2 + 3 \text{H}_2$

##### 10.6 Hazardous decomposition products

See also Subsection 10.1 to 10.5.  
n.a.

#### SECTION 11: Toxicological information

##### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Possibly more information on health effects, see Section 2.1 (classification).

##### Calcium oxide

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>2000	mg/kg	Rat	OECD 425 (Acute Oral Toxicity - Up-and-Down Procedure)	
Acute toxicity, by dermal route:	LD50	>2500	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	Calcium dihydroxide, The results are applicable to calcium oxide, since in contact with moisture calcium hydroxide is formed.
Acute toxicity, by inhalation:						n.d.a.
Skin corrosion/irritation:					OECD 431 (In Vitro Skin Corrosion - Human Skin Model Test)	Non-caustic, Analogous conclusion, Calcium dihydroxide
Skin corrosion/irritation:				Rabbit		Irritant, in vivo
Serious eye damage/irritation:				Rabbit		Risk of serious damage to eyes., in vivo
Respiratory or skin sensitisation:						Not to be expected
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative, Analogous conclusion, Calcium dihydroxide
Germ cell mutagenicity:					OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative, Analogous conclusion, Calcium dihydroxide
Germ cell mutagenicity:					OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative, Analogous conclusion, Calcium dihydroxide
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.

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Carcinogenicity:				Rat		Analogous conclusion, Negative, administered as Ca-lactate
Reproductive toxicity:				Mouse		Analogous conclusion, Negative, administered as Ca-carbonate
Specific target organ toxicity - single exposure (STOT-SE):						Irritation of the respiratory tract
Specific target organ toxicity - repeated exposure (STOT-RE):						n.d.a.
Specific target organ toxicity - repeated exposure (STOT-RE), oral:		36	mg/kg bw/d			(UL by SCF)
Specific target organ toxicity - repeated exposure (STOT-RE), dermal:						Negative
Aspiration hazard:						No
Symptoms:						breathing difficulties, respiratory distress, drowsiness, diarrhoea, thirst, vomiting, cornea opacity, coughing, headaches, mucous membrane irritation, shock, sweating

**11.2. Information on other hazards**

Calcium oxide						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Endocrine disrupting properties:						n.d.a.
Other information:						No other relevant information available on adverse effects on health.

**SECTION 12: Ecological information**

Possibly more information on environmental effects, see Section 2.1 (classification).

Calcium oxide							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	50,6	mg/l			freshwater, Calcium dihydroxide, The results are applicable to calcium oxide, since in contact with moisture calcium hydroxide is formed.
12.1. Toxicity to fish:	LC50	96h	457	mg/l			marine water, Calcium dihydroxide, The results are applicable to calcium oxide, since in contact with moisture calcium hydroxide is formed.
12.1. Toxicity to daphnia:	EC50	48h	49,1	mg/l			freshwater, Calcium dihydroxide, The results are applicable to calcium oxide, since in contact with moisture calcium hydroxide is formed.
12.1. Toxicity to daphnia:	LC50	96h	158	mg/l			marine water, Calcium dihydroxide, The results are applicable to calcium oxide, since in contact with moisture calcium hydroxide is formed.
12.1. Toxicity to daphnia:	NOEC/NOEL	14d	32	mg/l			marine water, Calcium dihydroxide, The results are applicable to calcium oxide, since in contact with moisture calcium hydroxide is formed.

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12.1. Toxicity to algae:	NOEC/NOEL	72h	48	mg/l			freshwater, Calcium dihydroxide, The results are applicable to calcium oxide, since in contact with moisture calcium hydroxide is formed.
12.1. Toxicity to algae:	EC50	72h	184,57	mg/l			freshwater, Calcium dihydroxide, The results are applicable to calcium oxide, since in contact with moisture calcium hydroxide is formed.
12.2. Persistence and degradability:							Not relevant for inorganic substances.
12.3. Bioaccumulative potential:							Not relevant for inorganic substances.
12.4. Mobility in soil:							Calcium oxide reacts with water and/or carbon dioxide to form respectively calcium dihydroxide and/or calcium carbonate, which are sparingly, and so present a low mobility in most ground.
12.5. Results of PBT and vPvB assessment							Not relevant for inorganic substances.
12.6. Endocrine disrupting properties:							Not to be expected
12.7. Other adverse effects:							pH-value of > 12 will rapidly decrease as result of dilution and carbonation., Even though this product can be used to neutralise over-acidified water, when 1g/l is exceeded organisms in the water may be affected adversely.
Toxicity to bacteria:							In high concentrations the product provokes an increase in temperature and of the pH-value. It is used to sanitise sewage sludge
Other organisms:	NOEC/NOEL		2000	mg/kg dw			Calcium dihydroxide, The results are applicable to calcium oxide, since in contact with moisture calcium hydroxide is formed. soil macroorganisms
Other organisms:	NOEC/NOEL		12000	mg/kg dw			Calcium dihydroxide, The results are applicable to calcium oxide, since in contact with moisture calcium hydroxide is formed. soil microorganisms
Other organisms:	NOEC/NOEL	21d	1080	mg/kg			Calcium dihydroxide, The results are applicable to calcium oxide, since in contact with moisture calcium hydroxide is formed. terrestrial plants

**SECTION 13: Disposal considerations**



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**13.1 Waste treatment methods**

**For the substance / mixture / residual amounts**

EC disposal code no.:  
 The waste codes are recommendations based on the scheduled use of this product.  
 Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU)  
 10 13 04 wastes from calcination and hydration of lime  
 Recommendation:  
 Sewage disposal shall be discouraged.  
 Pay attention to local and national official regulations.  
 Protect from humidity.

**For contaminated packing material**

Pay attention to local and national official regulations.  
 Uncontaminated packaging can be recycled.


**SECTION 14: Transport information**

**General statements**

**Transport by road/by rail (ADR/RID)**

14.1. UN number or ID number:	1910
14.2. UN proper shipping name:	
UN 1910 Not subject to ADR	
14.3. Transport hazard class(es):	
14.4. Packing group:	-
14.5. Environmental hazards:	Not applicable
Tunnel restriction code:	
Classification code:	C6
LQ:	
Transport category:	

**Transport by sea (IMDG-code)**

14.1. UN number or ID number:	1910	
14.2. UN proper shipping name:		
UN 1910 Calcium oxide -NO SUBJECT TO IMDG-		
14.3. Transport hazard class(es):	8	
14.4. Packing group:	-	
14.5. Environmental hazards:	Not applicable	
Marine Pollutant:	Not applicable	
EmS:	-	

**Transport by air (IATA)**

14.1. UN number or ID number:	1910	
14.2. UN proper shipping name:		
UN 1910 Calcium oxide		
14.3. Transport hazard class(es):	8	
14.4. Packing group:	III	
14.5. Environmental hazards:	Not applicable	

**14.6. Special precautions for user**

Persons employed in transporting dangerous goods must be trained.  
 All persons involved in transporting must observe safety regulations.  
 Precautions must be taken to prevent damage.

**14.7. Maritime transport in bulk according to IMO instruments**

Freight as packaged goods rather than in bulk, therefore not applicable.  
 Minimum amount regulations have not been taken into account.  
 Danger code and packing code on request.  
 Comply with special provisions.  
 Avoid any release of dust during transportation, by using tight tanks for powders.  
 When loading lump lime cover loading surfaces to avoid dust from developing.

**SECTION 15: Regulatory information**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Observe restrictions:  
 Comply with trade association/occupational health regulations.

**15.2 Chemical safety assessment**

A chemical safety assessment was carried out for the following substance(s):  
 Calcium oxide

**SECTION 16: Other information**

Revised sections: 1

**Link exposure scenarios (Annex as a separate document):**

[https://sichdatonline.chemical-check.de/Dokumente/714/EX/A-1\\_0016\\_12-10-2022\\_EN\\_EX.pdf](https://sichdatonline.chemical-check.de/Dokumente/714/EX/A-1_0016_12-10-2022_EN_EX.pdf)

**Registration/listing status:**

EU:	
ECOCIN CAS:	1305-78-8
EINECS No.:	215-138-9
JAPAN:	
ENCS No.:	1-189
ISHL	

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KOREA:  
 ECL Serial No.: KE-04588  
 SWITZERLAND:  
 Swiss No.: G-1351  
 USA:  
 TSCA, FIFRA, DOT, FDA, NIOSH, OSHA, ACGIH, STATE  
 CANADA:  
 DSL, WHMIS  
 AUSTRALIA:  
 AICS  
 NEW ZEALAND:  
 NZIoC  
 PHILIPPINES:  
 PICCS  
 CHINA:  
 IECS  
 MEXICO:  
 INSQ

**References**

90/269/EWG  
 Booklet L64 - Safety Signs and Signals. The Health and Safety (Safety Signs and Signals) Regulation 1996 -  
 Guidance on Regulations (HSE) - ISBN 0 7176 0870 0  
 IUCLID Dataset 2000  
 Merck Index (Ed. Merck & Co, Rahway, USA)  
 Anonymous, 2006:  
 Tolerable upper intake levels for vitamins and minerals Scientific Committee on Food, 92-9199-014-0 [SFC document]  
 European Food Safety Authority, ISBN:  
 Anonymous, 2008:  
 Recommendation from the Scientific Committee on Occupational Exposure Limits (SCOEL) for calcium oxide (CaO) and calcium dihydroxid (Ca(OH)<sub>2</sub>), European Commission,  
 DG Employment, Social Affairs and Equal Opportunities, SCOEL/SUM 137 February 2008

Employee training in handling dangerous goods is required.  
 These details refer to the product as it is delivered.  
 Employee instruction/training in handling hazardous materials is required.  
 The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).  
 H315 Causes skin irritation.  
 H318 Causes serious eye damage.  
 H335 May cause respiratory irritation.

STOT SE — Specific target organ toxicity - single exposure - respiratory tract irritation  
 Skin Irrit. — Skin irritation  
 Eye Dam. — Serious eye damage

**Key literature references and sources for data:**

Regulation (EC) No 1907/2006 (REACH) and Regulation (EC) No 1272/2008 (CLP) as amended.  
 Guidelines for the preparation of safety data sheets as amended (ECHA).  
 Guidelines on labelling and packaging according to the Regulation (EG) Nr. 1272/2008 (CLP) as amended (ECHA).  
 Safety data sheets for the constituent substances.  
 ECHA Homepage - Information about chemicals.  
 GESTIS Substance Database (Germany).  
 German Environment Agency "Rigoletto" information site on substances that are hazardous to water (Germany).  
 EU Occupation Exposure Limits Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164, (EU) 2019/1831, each as amended.  
 National Lists of Occupational Exposure Limits for each country as amended.  
 Regulations on the transport of hazardous goods by road, rail, sea and air (ADR, RID, IMDG, IATA) as amended.

**Any abbreviations and acronyms used in this document:**

acc., acc. to according, according to  
 ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)  
 AOX Adsorbable organic halogen compounds  
 approx. approximately  
 Art., Art. no. Article number  
 ASTM ASTM International (American Society for Testing and Materials)  
 ATE Acute Toxicity Estimate  
 BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)  
 BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)  
 BCF Bioconcentration factor  
 BSEF The International Bromine Council  
 bw body weight  
 CAS Chemical Abstracts Service  
 CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)  
 CMR carcinogenic, mutagenic, reproductive toxic  
 DMEL Derived Minimum Effect Level  
 DNEL Derived No Effect Level  
 DOC Dissolved organic carbon  
 dw dry weight  
 e.g. for example (abbreviation of Latin 'exempli gratia'), for instance  
 EbCx, EyCx, EbLx (x = 10, 50) Effect Concentration/Level of x % on reduction of the biomass (algae, plants)  
 EC European Community  
 ECHA European Chemicals Agency  
 ECx, ELx (x = 0, 3, 5, 10, 20, 50, 80, 100) Effect Concentration/Level for x % effect  
 EEC European Economic Community

GB

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EINECS European Inventory of Existing Commercial Chemical Substances  
 ELINCS European List of Notified Chemical Substances  
 EN European Norms  
 EPA United States Environmental Protection Agency (United States of America)  
 ErCx, E<sub>u</sub>Cx, ErLx (x = 10, 50) Effect Concentration/Level of x % on inhibition of the growth rate (algae, plants)  
 etc. et cetera  
 EU European Union  
 EVAL Ethylene-vinyl alcohol copolymer  
 Fax. Fax number  
 gen. general  
 GHS Globally Harmonized System of Classification and Labelling of Chemicals  
 GWP Global warming potential  
 Koc Adsorption coefficient of organic carbon in the soil  
 Kow octanol-water partition coefficient  
 IARC International Agency for Research on Cancer  
 IATA International Air Transport Association  
 IBC (Code) International Bulk Chemical (Code)  
 IMDG-code International Maritime Code for Dangerous Goods  
 incl. including, inclusive  
 IUCLID International Uniform Chemical Information Database  
 IUPAC International Union for Pure Applied Chemistry  
 LC50 Lethal Concentration to 50 % of a test population  
 LD50 Lethal Dose to 50% of a test population (Median Lethal Dose)  
 Log Koc Logarithm of adsorption coefficient of organic carbon in the soil  
 Log Kow, Log Pow Logarithm of octanol-water partition coefficient  
 LQ Limited Quantities  
 MARPOL International Convention for the Prevention of Marine Pollution from Ships  
 n.a. not applicable  
 n.av. not available  
 n.c. not checked  
 n.d.a. no data available  
 NIOSH National Institute for Occupational Safety and Health (USA)  
 NLP No-longer-Polymer  
 NOEC, NOEL No Observed Effect Concentration/Level  
 OECD Organisation for Economic Co-operation and Development  
 org. organic  
 OSHA Occupational Safety and Health Administration (USA)  
 PBT persistent, bioaccumulative and toxic  
 PE Polyethylene  
 PNEC Predicted No Effect Concentration  
 ppm parts per million  
 PVC Polyvinylchloride  
 REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)  
 REACH-IT List-No. 9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.  
 RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)  
 SVHC Substances of Very High Concern  
 Tel. Telephone  
 TOC Total organic carbon  
 UN RTDG United Nations Recommendations on the Transport of Dangerous Goods  
 VOC Volatile organic compounds  
 vPvB very persistent and very bioaccumulative  
 wwt wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge. No responsibility.

These statements were made by:

**Chemical Check GmbH, Chemical Check Platz 1-7, D-32839 Steinheim, Tel.: +49 5233 94 17 0, Fax: +49 5233 94 17 90**

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