

## SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

### Calcium oxide

Creation date	13th September 2019	Version	1.0
Revision date			

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

- 1.1. Product identifier**  
 Calcium oxide  
 Substance / mixture: substance  
 Chemical name: calcium-oxide  
 CAS number: 1305-78-8  
 EC (EINECS) number: 215-138-9
- 1.2. Relevant identified uses of the substance or mixture and uses advised against**  
 Substance's intended use: Chemical production, analytical chemistry, laboratory synthesis, industrial applications.  
 Substance uses advised against: The product should not be used in ways other than those referred in Section 1.  
 Chemical safety report
- 1.3. Details of the supplier of the safety data sheet**  
**Supplier**  
 Name or trade name: Ing. Petr Švec - PENTA s.r.o.  
 Address: Radiová 1122/1, Praha 10, 102 00  
 Czech Republic  
 Identification number (CRN): 02096013  
 VAT Reg No: CZ02096013  
 Phone: +420 226 060 681  
 E-mail: info@pentachemicals.eu  
 Web address: www.pentachemicals.eu
- Competent person responsible for the safety data sheet**  
 Name: Ing. Petr Švec - PENTA s.r.o.  
 E-mail: info@pentachemicals.eu
- 1.4. Emergency telephone number**  
 National Health Service (NHS) 111  
 National poisoning information centre Scotland, NHS 24: 111

#### SECTION 2: Hazards identification

- 2.1. Classification of the substance or mixture**  
**Classification of the substance in accordance with Regulation (EC) No 1272/2008**  
 The substance is classified as dangerous.  
 Skin Corr. 1A, H314  
 Full text of all classifications and hazard statements is given in the section 16.  
**Most serious adverse effects on human health and the environment**  
 Causes severe skin burns and eye damage.

- 2.2. Label elements**  
**Hazard pictogram**



**Signal word**  
 Danger

**Dangerous substance**  
 calcium-oxide (EC: 215-138-9; CAS: 1305-78-8)

## SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

### Calcium oxide

Creation date 13th September 2019  
Revision date Version 1.0

#### Hazard statements

H314 Causes severe skin burns and eye damage.

#### Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.

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 doctor.

#### 2.3. Other hazards

Substance does not meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended.

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

##### Chemical characterization

The substance specified below.

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note.
CAS: 1305-78-8 EC: 215-138-9	<b>substance main component</b> calcium-oxide	>97		

Full text of all classifications and hazard statements is given in the section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

Take care of your own safety. If any health problems are manifested or if in doubt, inform a doctor and show him information from this safety data sheet. If unconscious, put the person in the stabilized (recovery) position on his side with his head slightly bent backwards and make sure that airways are free; never induce vomiting. If the person vomits by himself, make sure that the vomit is not inhaled. In life threatening conditions first of all provide resuscitation of the affected person and ensure medical assistance. Respiratory arrest - provide artificial respiration immediately. Cardiac arrest - provide indirect cardiac massage immediately.

##### If inhaled

Take care of your own safety, do not let the affected person walk! Terminate the exposure immediately; move the affected person to fresh air. Beware of the contaminated clothes. Depending on the situation, call the medical rescue service and ensure medical treatment considering the frequent need of further observation for at least 24 hours.

##### If on skin

Remove contaminated clothes. Take off any rings, watches, bracelets before or during washing if worn in the contaminated areas of the skin. Depending on the situation, call the medical rescue service and always ensure medical treatment. Rinse contaminated areas with a flow of water, lukewarm at best, for 10-30 minutes; do not use any brush, soap or neutralizers. Rinse skin with water/shower. Rinse cautiously with water for several minutes.

##### If in eyes

Rinse eyes immediately with a flow of running water, open the eyelids (also using force if needed); remove contact lenses immediately if worn by the affected person. No neutralization should be performed in any case! Rinsing should be continued for 10-30 minutes from the inner to the outer eye corner to make sure that the other eye is not involved. Depending on the situation, call medical rescue service or ensure medical treatment as promptly as possible. Everyone must be referred for treatment even if affected only a little.

##### If swallowed

DO NOT INDUCE VOMITING - there is danger of further damage to the gastrointestinal tract!!! Danger of esophageal and gastric perforation! RINSE THE MOUTH WITH WATER IMMEDIATELY AND LET THE PERSON DRINK 2-5 dl of cold water to reduce the heating effect of the corrosive substance. Consuming larger amounts of liquid is not advisable as it may induce vomiting and potential inhaling of the corrosive substances in the lungs. The affected person must not be forced to drink, particularly if already feeling pain in the mouth or throat. In this case let the affected person only rinse the mouth with water. DO NOT PROVIDE ACTIVATED CARBON! Depending on the situation, call medical rescue service or ensure medical treatment as promptly as possible.

## SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

### Calcium oxide

Creation date	13th September 2019	Version	1.0
Revision date			

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

##### If inhaled

Inhaling dust can cause corrosion of the breathing system.

##### If on skin

Causes severe skin burns.

##### If in eyes

Causes serious eye damage.

##### If swallowed

Corrosion of the digestion system can occur.

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

Symptomatic treatment.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

##### Suitable extinguishing media

Alcohol-resistant foam, carbon dioxide, powder, water spray jet, water mist.

##### Unsuitable extinguishing media

Water - full jet.

#### 5.2. Special hazards arising from the substance or mixture

In the event of fire, carbon monoxide, carbon dioxide and other toxic gases may arise. Inhalation of hazardous degradation (pyrolysis) products may cause serious health damage.

#### 5.3. Advice for firefighters

Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit only where personal (close) contact is likely. Use a self-contained breathing apparatus and full-body protective clothing. Do not allow run-off of contaminated fire extinguishing material to enter drains or surface and ground water.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment for work. Follow the instructions in the Sections 7 and 8. Do not inhale dust. Prevent contact with skin and eyes.

#### 6.2. Environmental precautions

Prevent contamination of the soil and entering surface or ground water.

#### 6.3. Methods and material for containment and cleaning up

Place the product mechanically in an appropriate manner. Dispose of the collected material according to the instructions in the section 13.

#### 6.4. Reference to other sections

See the Section 7, 8 and 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Prevent formation of gases and vapours in concentrations exceeding the occupational exposure limits. Do not inhale dust. Prevent contact with skin and eyes. Wash hands and exposed parts of the body thoroughly after handling. Use personal protective equipment as per Section 8. Observe valid legal regulations on safety and health protection.

#### 7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed containers in cold, dry and well ventilated areas designated for this purpose. Store locked up.

Storage class

8B - Nehořlavé žíraviny

#### 7.3. Specific end use(s)

not available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

none

## SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

### Calcium oxide

Creation date	13th September 2019	Version	1.0
Revision date			

#### 8.2. Exposure controls

Follow the usual measures intended for health protection at work and especially for good ventilation. This can be achieved only by local suction or efficient general ventilation. Do not eat, drink and smoke during work. Wash your hands thoroughly with water and soap after work and before breaks for a meal and rest.

##### Eye/face protection

Protective goggles or face shield (based on the nature of the work performed).

##### Skin protection

Hand protection: Protective gloves resistant to the product. When choosing appropriate thickness, material and permeability of the gloves, observe recommendations of their particular manufacturer. Observe other recommendations of the manufacturer. Other protection: protective workwear. Contaminated skin should be washed thoroughly.

##### Respiratory protection

Use a mask with anti-dust filter when the exposition limits of the substances are exceeded or at the place with insufficient ventilation.

##### Thermal hazard

Not available.

##### Environmental exposure controls

Observe usual measures for protection of the environment, see Section 6.2.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Appearance	
Physical state	solid at 20°C
color	bílá, nažloutlá, našedlá
Odour	without fragrance
Odour threshold	data not available
pH	12.5 (undiluted)
Melting point/freezing point	2600 °C
Initial boiling point and boiling range	2850 °C
Flash point	data not available
Evaporation rate	data not available
Flammability (solid, gas)	data not available
Upper/lower flammability or explosive limits	
flammability limits	data not available
explosive limits	data not available
Vapour pressure	data not available
Vapour density	data not available
Relative density	data not available
Solubility(ies)	
solubility in water	data not available
solubility in fats	data not available
Partition coefficient: n-octanol/water	data not available
Auto-ignition temperature	data not available
Decomposition temperature	data not available
Viscosity	data not available
Explosive properties	data not available
Oxidising properties	data not available

### 9.2. Other information

Density	data not available
ignition temperature	data not available

## SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

### Calcium oxide

Creation date	13th September 2019	Version	1.0
Revision date			

#### SECTION 10: Stability and reactivity

##### 10.1. Reactivity

The substance is non-flammable.

##### 10.2. Chemical stability

The product is stable under normal conditions.

##### 10.3. Possibility of hazardous reactions

Unknown.

##### 10.4. Conditions to avoid

The product is stable and no degradation occurs under normal use. Protect against flames, sparks, overheating and against frost.

##### 10.5. Incompatible materials

Protect against strong acids, bases and oxidizing agents.

##### 10.6. Hazardous decomposition products

Not developed under normal uses. Dangerous outcomes such as carbon monoxide and carbon dioxide are formed at high temperature and in fire.

#### SECTION 11: Toxicological information

##### 11.1. Information on toxicological effects

No toxicological data is available for the substance.

##### Acute toxicity

Based on available data the classification criteria are not met.

##### Skin corrosion/irritation

Causes severe skin burns and eye damage.

##### Serious eye damage/irritation

Causes severe skin burns and eye damage.

##### Respiratory or skin sensitisation

Based on available data the classification criteria are not met.

##### Germ cell mutagenicity

Based on available data the classification criteria are not met.

##### Carcinogenicity

Based on available data the classification criteria are not met.

##### Reproductive toxicity

Based on available data the classification criteria are not met.

##### Toxicity for specific target organ - single exposure

Based on available data the classification criteria are not met.

##### Toxicity for specific target organ - repeated exposure

Based on available data the classification criteria are not met.

##### Aspiration hazard

Inhalation of solvent vapors above values exceeding exposure limits for working environment may result in acute inhalation poisoning, depending on the level of concentration and exposure time. Based on available data the classification criteria are not met.

## SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

### Calcium oxide

Creation date 13th September 2019  
Revision date Version 1.0

#### SECTION 12: Ecological information

##### 12.1. Toxicity

###### Acute toxicity

Calcium oxide

Parameter	Value	Time of exposure	Species	Environment
LC50	1070 mg/l	96 hour	Fishes (C.carpio)	

##### 12.2. Persistence and degradability

Data not available.

##### 12.3. Bioaccumulative potential

Not available.

##### 12.4. Mobility in soil

Not available.

##### 12.5. Results of PBT and vPvB assessment

Product does not contain any substance meeting the criteria for PBT or vPvB in accordance with the Annex XIII of Regulation (EC) No 1907/2006 (REACH) as amended.

##### 12.6. Other adverse effects

Not available.

#### SECTION 13: Disposal considerations

##### 13.1. Waste treatment methods

Hazard of environmental contamination; dispose of the waste in accordance with the local and/or national regulations. Proceed in accordance with valid regulations on waste disposal. Any unused product and contaminated packaging should be put in labelled containers for waste collection and submitted for disposal to a person authorised for waste removal (a specialized company) that is entitled for such activity. Do not empty unused product in drainage systems. The product must not be disposed of with municipal waste. Empty containers may be used at waste incinerators to produce energy or deposited in a dump with appropriate classification. Perfectly cleaned containers can be submitted for recycling.

###### Waste management legislation

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, as amended. Decision 2000/532/EC establishing a list of wastes, as amended.

#### SECTION 14: Transport information

##### 14.1. UN number

UN 1910

##### 14.2. UN proper shipping name

Calcium oxide

##### 14.3. Transport hazard class(es)

8 Corrosive substances

##### 14.4. Packing group

not available

##### 14.5. Environmental hazards

not available

##### 14.6. Special precautions for user

Reference in the Sections 4 to 8.

##### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not available

## SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

### Calcium oxide

Creation date	13th September 2019	Version	1.0
Revision date			

#### Additional information

Hazard identification No.	 (Kemler Code)
UN number	 1910
Classification code	C6

#### Air transport - ICAO/IATA

Packaging instructions passenger	860
Cargo packaging instructions	864

### SECTION 15: Regulatory information

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

Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16th December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No. 1907/2006, as amended.

#### 15.2. Chemical safety assessment

not available

### SECTION 16: Other information

#### A list of standard risk phrases used in the safety data sheet

H314 Causes severe skin burns and eye damage.

#### Guidelines for safe handling used in the safety data sheet

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P310 Immediately call a doctor.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

#### Other important information about human health protection

The product must not be - unless specifically approved by the manufacturer/importer - used for purposes other than as per the Section 1. The user is responsible for adherence to all related health protection regulations.

#### Key to abbreviations and acronyms used in the safety data sheet

ADR	European agreement concerning the international carriage of dangerous goods by road
BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures
DNEL	Derived no-effect level
EC	Identification code for each substance listed in EINECS
EC50	Concentration of a substance when it is affected 50% of the population
EINECS	European Inventory of Existing Commercial Chemical Substances
EmS	Emergency plan
EU	European Union
IATA	International Air Transport Association
IBC	International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals
IC50	Concentration causing 50% blockade
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
INCI	International Nomenclature of Cosmetic Ingredients

## SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

### Calcium oxide

Creation date	13th September 2019	Version	1.0
Revision date			
ISO	International Organization for Standardization		
IUPAC	International Union of Pure and Applied Chemistry		
LC50	Lethal concentration of a substance in which it can be expected death of 50% of the population		
LD50	Lethal dose of a substance in which it can be expected death of 50% of the population		
LOAEC	Lowest observed adverse effect concentration		
LOAEL	Lowest observed adverse effect level		
log Kow	Octanol-water partition coefficient		
MARPOL	International Convention for the Prevention of Pollution From Ships		
NOAEC	No observed adverse effect concentration		
NOAEL	No observed adverse effect level		
NOEC	No observed effect concentration		
NOEL	No observed effect level		
OEL	Occupational Exposure Limits		
PBT	Persistent, Bioaccumulative and Toxic		
PNEC	Predicted no-effect concentration		
ppm	Parts per million		
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals		
RID	Agreement on the transport of dangerous goods by rail		
UN	Four-figure identification number of the substance or article taken from the UN Model Regulations		
UVCB	Substances of unknown or variable composition, complex reaction products or biological materials		
VOC	Volatile organic compounds		
vPvB	Very Persistent and very Bioaccumulative		

Skin Corr. Skin corrosion

#### Training guidelines

Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the product.

#### Recommended restrictions of use

not available

#### Information about data sources used to compile the Safety Data Sheet

REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended. REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. First aid principles after the exposure to the chemicals (Zásady pro poskytování první pomoci při expozici chemickým látkám, doc. MUDr. Daniela Pelclová, CSc., MUDr. Alexandr Fuchs, CSc., MUDr. Miroslava Hornychová, CSc., MUDr. Zdeňka Trávníčková, CSc., Jiřina Fridrichovská, prom. chem.). Data from the manufacturer of the substance / mixture, if available - information from registration dossiers.

#### More information

Classification procedure - calculation method.

#### Statement

The safety data sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.