

## **SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE COMPANY/UNDERTAKING**

### *1.1 Product identifier:*

Chemical name and formula: Calcium magnesium oxide – CaMgO<sub>2</sub>

Synonyms: Dolomite burnt lime, burnt dolomite, dolomite lime, dolime, dolomite lump lime

Trade name: Dolomitkalk DK / Dolomitstückkalk DSK / StradaCal DK g / Dolomitkalk DK g / Feinstdolomit FD

CAS no.: 37247-91-9

EC no.: 253-425-0

Molecular mass: 96,39 g/mol

REACH registration number: 01-2119474202-47-0010

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

Uses of the substance:

The following list is not exhaustive:

Chemical industry, metal industry, agriculture, biocidal applications, environmental protection (e.g. flue gas treatment, waste water treatment, sludge treatment, potable water treatment), animal feeds, foodstuffs, pharmaceuticals industry, construction, civil engineering, paper and paint industry.

The identified uses can be found in Table 1 of the appendix to this Product Safety Data Sheet. None of the uses identified in Table 1 of the appendix of this Product Safety Data Sheet is advised against.

### *1.3 Details of the supplier of the Product Safety Data Sheet*

Name: Fels Vertriebs und Service GmbH & Co. KG

Address: Geheimrat-Ebert-Straße 12, D-38640 Goslar

Tel. no: +49(0) 5321 703 408

Fax no: +49(0) 5321 703 425

E-mail address of the person responsible for the Product Safety Data Sheet: reach@fels.de

### *1.4 Emergency telephone number*

European emergency telephone number 112

Emergency information service: **+49(0) 551 19240**  
**University Hospital Göttingen – GIZ Nord**

Manufacturer's emergency number: +49(0) 39454 58 441

Availability outside office hours: No

## SECTION 2: POTENTIAL HAZARDS

### 2.1 Classification of the substance or mixture

#### 2.1.1 Classification according to Regulation (EC) 1272/2008

Skin Irrit. 2; H315

Eye Dam. 1; H318

STOT SE 3; H335; exposure pathway inhalation

#### 2.1.2. Additional information

See section 16 for full text of hazard and risk phrases.

### 2.2 Label elements

Labelling according to Regulation (EC) 1272/2008 (CLP)

#### Hazard pictograms:



Signal word: Danger

#### Hazard statements:

H315: Causes skin irritation

H318: Causes serious eye damage

H335: May cause respiratory irritation.

#### Precautionary statements:

P102: Keep out of reach of children.

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.

P302+P352: IF ON SKIN: Wash with plenty of water.

P310: Immediately call a POISON CENTRE or doctor/physician.

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P501: Dispose of contents/container in accordance with national regulations.

### 2.3 Other hazards

The substance does not meet the criteria for PBT or vPvB substances.

The substance exhibits no endocrine disrupting properties and has not been added to the list of substances having endocrine disrupting properties in accordance with Article 59 of Regulation (EC) 1907/2006.

The substance exhibits no endocrine disrupting or endocrine disruptive properties in accordance with the criteria of Delegated Regulation (EU) 2017/2100 or Regulation (EU) 2018/605.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

Ingredients classified in accordance with Regulation (EC) 1272/2008:

CAS number	EG number	REACH registration number	Substance name	Weight % content (or range)	Classification according to Regulation (EC) 1272/2008 [CLP]
37247-91-9	253-425-0	01-2119474202-47-0010	Calcium magnesium oxide	≥ 80%	<i>Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H335</i>

Substances of Very High Concern (SVHC), published in accordance with Article 59 of Regulation (EC) No. 1907/2006, are not contained at a concentration greater than 0.1 mass percent.

## SECTION 4: FIRST AID MEASURES

### 4.1 Description of first aid measures

#### General advice

No known delayed effects. Consult a physician for all exposures except for minor instances.

#### Following inhalation

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

#### Following skin contact

Carefully and gently wipe the contaminated skin areas in order to remove all traces of product. Wash affected area immediately with plenty of water. Remove contaminated clothing. If necessary seek medical advice.

#### Following eye contact

Rinse eyes immediately with plenty of water and seek medical advice.

#### After ingestion

Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Obtain medical attention.

#### Self-protection for first-aiders

Avoid contact with the skin, eyes and clothing; wear appropriate personal protective equipment (see subsection 8.2.2); avoid inhaling dust; ensure sufficient ventilation or wear appropriate respiratory protection.

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

The substance is not acutely toxic via the oral, dermal, or inhalation route. The substance is classified as irritating to the skin and to the respiratory system. There is a risk of serious damage to the eyes. There is no concern regarding adverse systemic effects because the pH-effect represents the primary health hazard.

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

Follow the advice given in section 4.1.

### **SECTION 5: FIRE FIGHTING MEASURES**

#### *5.1 Extinguishing media*

##### *5.1.1 Suitable extinguishing media*

The substance is not flammable. Use a dry powder, foam or CO<sub>2</sub> fire extinguisher to extinguish surrounding fires.

Use extinguishing measures appropriate to the local circumstances.

##### *5.1.2 Unsuitable extinguishing media*

Do not use water.

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

Calcium magnesium oxide reacts with water and generates heat. Possible hazard for flammable material.

#### *5.3 Advice for fire fighters*

Ensure the product is sufficiently ventilated. Avoid generation of dust. Use extinguishing measures appropriate to the local circumstances. Use self-contained breathing apparatus.

### **SECTION 6: ACCIDENTAL RELEASE MEASURES**

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

##### *6.1.1 For non-emergency personnel*

Ensure adequate ventilation. Prevent moistening.

Keep dust levels to a minimum.

Keep unprotected persons away.

Avoid contact with skin, eyes, and clothing – wear suitable protective equipment (see section 8).

Avoid inhalation of dust, ensure that sufficient ventilation or suitable respiratory protective equipment is used (see section 8).

### *6.1.2 For emergency responders*

Ensure adequate ventilation. Prevent moistening.

Keep dust levels to a minimum.

Keep unprotected persons away.

Avoid contact with skin, eyes, and clothing – wear suitable protective equipment (see section 8).

Avoid inhalation of dust, ensure that sufficient ventilation or suitable respiratory protective equipment is used (see section 8).

### *6.2 Environmental precautions*

Contain any spillage.

Keep the material dry if possible.

Cover area if possible to avoid unnecessary dust hazard.

Avoid uncontrolled spills to watercourses and drains (pH increase).

Any large spillage into watercourses or drains must be reported to the competent authority.

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

In all cases avoid dust formation.

Keep the material dry if possible.

Pick up the (dry) product mechanically.

Use vacuum suction unit or shovel into bags.

### *6.4 Reference to other sections*

For more information on exposure control, personal protection and disposal, please see sections 8 and 13 of this product safety data sheet and its appendix.

## **SECTION 7: HANDLING AND STORAGE**

### *7.1 Precautions for safe handling*

#### *7.1.1 General recommendations*

Avoid contact with the skin and eyes. Wear protective clothing (see section 8). Do not wear contact lenses. A portable eye rinse bottle is recommended. Minimise dust generation. Keep dust levels to a minimum. Dust sources should be sealed, turn on extractor. Filler systems should be sealed. When handling sacks the safety instructions must be observed in accordance with Regulation 90/269/EEC.

#### *7.1.2 Notes on general hygiene measures in the workplace*

Avoid inhalation, ingestion and contact with the skin and eyes. Do not eat, drink or smoke in the workplace. Shower and change your clothes at the end of your shift. Do not wear contaminated clothing outside the workplace. General hygiene measures in the workplace necessitate appropriate organisational measures such as regular cleaning of the workplace with suitable cleaning equipment.

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

Store under dry conditions. Minimise contact with air and moisture. Bulk storage should be in suitable silos. Keep away from acids, significant quantities of paper, straw, and nitro compounds. Keep out of reach of children. Aluminium is not suitable for transportation or storage if there is a risk of contact with water.

### 7.3 Specific end uses

The identified uses set forth in Table 1 in the appendix to this Product Safety Data Sheet shall be observed.

Further information can be found in the exposure scenarios in the appendix.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### **DNEL:**

Employee				
Exposure pathway	Acute local effect	Acute systemic effect	Chronic local effect	Chronic systemic effect
Oral	Not applicable			
Inhalation	4 mg/m <sup>3</sup> (respirable dust)	No harmful effects known	1 mg/m <sup>3</sup> (respirable dust)	No harmful effects known
Dermal	Harmful effects known, but no DNEL available	No harmful effects known	Harmful effects known, but no DNEL available	No harmful effects known

Consumer				
Exposure pathway	Acute local effect	Acute systemic effect	Chronic local effect	Chronic systemic effect
Oral	No exposure expected	No harmful effects known	No exposure expected	No harmful effects known
Inhalation	4 mg/m <sup>3</sup> (respirable dust)	No harmful effects known	1 mg/m <sup>3</sup> (respirable dust)	No harmful effects known
Dermal	Harmful effects known, but no DNEL available	No harmful effects known	Harmful effects known, but no DNEL available	No harmful effects known

**PNEC:**

Environmental protection target	PNEC	Remarks
Fresh water	0.32 mg/l	
Freshwater sediments	No PNEC available	Insufficient data available
Sea water	0.21 mg/l	
Sea water sediments	No PNEC available	Insufficient data available
Food (bioaccumulation)	No harmful effects known	No potential for bioaccumulation
Microorganisms sewage sludge treatment	1.95 mg/l	
Soil (agricultural)	702 mg/kg soil/dry weight	
Air	No harmful effects known	

**National occupational exposure limit (Germany):**

CAS no.:	Type of assessment value	Assessment value (mg/m <sup>3</sup> )	Peak limit Fact. (Cat.) short-term value	Origin	Monitoring procedure, e.g.
<b>General dust threshold (not substance specific)</b>					
	Occupational exposure limit	8 h 1.25 (A) 10 (E)	2 (II) 15 min	TRGS 900	TRGS 402

A = alveolene penetrant dust fraction

E = respirable dust fraction

**8.2 Limitation and control of exposure**

Dust generation should be avoided. Furthermore, appropriate protective equipment is recommended. Eye protection (e.g. protective goggles or visor) must be worn unless potential contact with the eye can be excluded by the nature and type of application (e.g. process enclosures). If necessary, face protection, protective clothing and safety shoes shall be worn.

Observe the relevant exposure scenarios in the Appendix.

**8.2.1 Appropriate engineering controls**

If operations generate dust, process enclosures, sufficient local exhaust ventilation, or other engineering controls must be available to keep airborne dust levels below recommended exposure limits.



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

### 8.2.2.1 Eye/face protection

Do not wear contact lenses. For powders, tight fitting goggles with side shields or wide vision full goggles in accordance with DIN EN 166:2002 to at least optical Class 2, mechanical strength F must be worn. A portable eye rinse bottle is recommended.

### 8.2.2.2 Skin protection

The substance is classified as irritating to skin. Dermal exposure must therefore be minimised as far as technically feasible. Protective gloves made of nitrile (NBR) in accordance with DIN EN ISO 374-1:2018/Type A or B (test chemical K, thickness at least 0.2 mm), standard protective working clothes which fully cover the skin, full length trousers, long-sleeved overalls with close-fitting cuffs at the openings, together with shoes that are resistant to caustics and dust penetration shall be worn.

### 8.2.2.3 Respiratory protection

Local ventilation is recommended to keep dust exposure below the established threshold values. If there is a risk of exceeding the threshold values, e.g. when handling the powder form of the opened dry product, then a suitable particulate filter mask in accordance with EN 149 shall be worn, depending on the expected exposure levels (low dust level: FFP1 mask; medium dust level: FFP2 mask; high dust level: FFP3 mask). Details regarding respiratory protection can be found in the applicable exposure scenario in the Appendix.

### 8.2.2.4 Thermal hazards

There are no thermal hazards if handled properly.

## 8.2.3 Environmental exposure limitation and control

Exhaust air from the ventilation system should be filtered before discharge to the atmosphere. Avoid releasing to the environment.

Contain any spillage. Uncontrolled spillage into watercourses must be reported to the competent authority.

The relevant exposure scenarios in the Appendix contain detailed notes on the risk management measures.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

- a) Physical state: solid; lump, granular or powder
- b) Colour: white to beige
- c) Odour: odourless
- d) Melting/freezing point: > 450°C (study result, EU A.1 method)
- e) Boiling point or initial boiling point and boiling range: not applicable (solid with a melting point > 450°C)
- f) Flammability: non-flammable (study result, EU A.10 method)
- g) Lower and upper explosive limit: not applicable to solids



- h) Flash point: not applicable (solid with a melting point > 450°C)  
 i) Auto-ignition temperature: no relative auto-ignition temperature below 400°C (study result, EU A16 method)  
 j) Decomposition temperature: Stable to 100°C.  
 k) pH value: 12.4 (saturated solution at 20°C)  
 l) Kinematic viscosity: not applicable (solid with a melting point > 450°C)  
 m) Solubility in water: 1385.2 mg/L (study result, EU A.6 method)  
 n) Partition coefficient - n-octanol-water (log-value) not applicable  
 o) Vapour pressure: not applicable (solid with a melting point > 450°C)  
 p) Density and/or relative density: 3.41 g/L (study result, EU A.3 method)  
 q) Relative vapour density: not applicable  
 r) Particle properties:

Product	Median value	Calculation of the median value	Measurement method	Deviation +/-
Feinst-dolomit FD, DK g, Strada-Cal DK g	60 µm	$Md = \begin{cases} x_{(\frac{n+1}{2})} & \text{falls } n \text{ UNGERADE} \\ (x_{(\frac{n}{2})} + x_{(\frac{n+1}{2})}) : 2 & \text{falls } n \text{ GERADE} \end{cases}$	Laser granulometer ISO 13320:2020	20 µm
DSK 2-12 mm	8000 µm	$Md = \begin{cases} x_{(\frac{n+1}{2})} & \text{falls } n \text{ UN} \\ (x_{(\frac{n}{2})} + x_{(\frac{n+1}{2})}) : 2 & \text{falls } n \text{ GERADE} \end{cases}$	Filtering DIN EN 933-1	2000 µm
DSK 10-40 mm	23000 µm	$Md = \begin{cases} x_{(\frac{n+1}{2})} & \text{falls } n \text{ UNGERADE} \\ (x_{(\frac{n}{2})} + x_{(\frac{n+1}{2})}) : 2 & \text{falls } n \text{ GERADE} \end{cases}$	Filtering DIN EN 933-1	5000 µm

Key:

falls n UNGERADE	if n = ODD
falls n GERADE	if n = EVEN

## 9.2 Other information

Based on the current state of knowledge, the product is not defined as a nanomaterial pursuant to Recommendation 2011/696 EU.

## SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity

Calcium magnesium oxide reacts exothermically with water to form calcium dihydroxide.

## 10.2 Chemical stability

Calcium magnesium oxide is stable under normal handling and storage conditions (dry).

## 10.3 Possibility of hazardous reactions

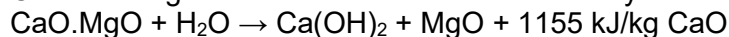
Calcium magnesium oxide reacts exothermically with acids to form calcium salts.

## 10.4 Conditions to avoid

Prevent the ingress of air and moisture to prevent decomposition.

## 10.5 Incompatible materials

Calcium magnesium oxide reacts exothermically with water to form calcium dihydroxide:



Calcium magnesium oxide reacts exothermically with acids to form calcium and magnesium salts.

Calcium magnesium oxide reacts with aluminium and brass in the presence of moisture to form hydrogen:  $\text{CaO.MgO} + 2 \text{ Al} + 7 \text{ H}_2\text{O} \rightarrow \text{MgO} + \text{Ca(Al(OH)}_4)_2 + 3 \text{ H}_2$

## 10.6 Hazardous decomposition products

None.

Disclaimer: Calcium magnesium oxide absorbs moisture and carbon dioxide from the air to form calcium magnesium carbonate, which is a natural product.

# SECTION 11: TOXICOLOGICAL INFORMATION

## 11.1 Information on hazard classes within the meaning of Regulation (EC) No. 1272/2008

### a) Acute toxicity

Oral LD<sub>50</sub> > 2,000 mg/kg bw (calcium dihydroxide, OECD 425, rat)

Oral LD<sub>50</sub> > 2,500 mg/kg bw (calcium dihydroxide, OECD 402, rabbit);

these results can be transferred to calcium magnesium oxide since calcium hydroxide is formed upon contact with moisture.

Inhalation No data available

Calcium magnesium oxide is not acutely toxic.

### b) Skin corrosion/irritation

Calcium dihydroxide is irritating to the skin (in vivo, rabbit). Through read-across, these results can also be transferred to calcium magnesium oxide.

Calcium dihydroxide is not corrosive to skin (in vitro, OECD 431). Through read-across, these results can also be transferred to calcium magnesium oxide.

*c) Serious eye damage/irritation*

Calcium oxide carries the risk of serious eye damage (OECD 405, in vivo, rabbit). Through read-across, these results can also be transferred to calcium magnesium oxide.

*d) Respiratory or skin sensitisation*

No data available. Calcium magnesium oxide is not classified as sensitizing to the skin because of its mechanism of action (change in pH) and the importance of calcium in the human diet.

*e) Germ cell mutagenicity*

Calcium dihydroxide is not genotoxic (in vitro, OECD 471, 473 and 476). Through read-across, these results can also be transferred to calcium magnesium oxide. Considering the omnipresence and essentiality of calcium and the physiological non-relevance of any pH shift induced by lime in aqueous media, calcium magnesium oxide is clearly has no genotoxic potential.

*f) Carcinogenicity*

Calcium (administered as Ca-lactate) is not carcinogenic (test result, rat). The pH effect of calcium magnesium oxide does not cause a carcinogenic risk. Human epidemiological data support the lack of carcinogenic potential of calcium magnesium oxide.

*g) Reproductive toxicity*

Calcium (administered as Ca-carbonate) is not toxic to reproduction (test result, mouse). The pH effect does not cause any risk to reproduction. Human epidemiological data show that there is no potential for the reproductive toxicity of calcium magnesium oxide. No effects on reproduction or development were found in animal experiments or human clinical trials on various calcium salts. Therefore, calcium magnesium oxide is not toxic to reproduction and/or development.

*h) STOT-single exposure*

It is concluded from human data that calcium magnesium oxide is irritating to the respiratory tract. Based on human data as summarised and evaluated in the SCOEL recommendation (anonymous, 2008) calcium magnesium oxide is classified as irritating to the respiratory system.

*i) STOT-repeated exposure*

The toxicity of calcium via the oral route has been taken into consideration. For adults, the tolerable upper intake level (UL) for the daily intake of calcium as determined by the Scientific Center on Food (SCF) is: UL=2,500 mg/day, corresponding to 36 mg/kg body weight/day (70 kg person).

The toxicity of CaO via dermal absorption is not considered relevant because significant absorption is not anticipated and local skin irritation has been determined as the primary local effect.

The toxicity of CaO via inhalation (local effect, irritation to mucous membranes) was determined by the 8 hour TWA value reported by the Scientific Committee on Occupational Exposure Limits (SCOEL) as 1 mg/m<sup>3</sup> respirable dust (cf. Section 8.1).

#### *j) Aspiration hazard*

It is not known whether an aspiration hazard exists when handling CaMgO<sub>2</sub>.

### *11.2 Information on other hazards*

#### *11.2.1 Endocrine disrupting properties*

Taking into consideration the criteria pursuant to Regulations (EC) 1907/2006, (EU) 2017/2100 and (EU) 2018/605 no endocrine disrupting properties of calcium magnesium oxide that affect human health are known.

#### *11.2.2 Other information*

Not applicable.

## **SECTION 12: ECOLOGICAL INFORMATION**

### *12.1 Toxicity*

#### *12.1.1 Acute/long-term toxicity to fish*

LC<sub>50</sub> (96h) for freshwater fish: 50.6 mg/l (calcium dihydroxide)

LC<sub>50</sub> (96h) for sea fish: 457 mg/l (calcium dihydroxide)

#### *12.1.2 Acute/long-term toxicity to aquatic invertebrates*

EC<sub>50</sub> (48h) for freshwater invertebrates: 49.1 mg/l (calcium dihydroxide)

LC<sub>50</sub> (96h) for seawater invertebrates: 158 mg/l (calcium dihydroxide)

#### *12.1.3 Acute/long-term toxicity to aquatic plants*

EC<sub>50</sub> (72h) for freshwater algae: 184.57 mg/l (calcium dihydroxide)

NOEC (72h) for freshwater algae: 48 mg/l (calcium dihydroxide)

#### *12.1.4 Toxicity to micro-organisms e.g. bacteria*

At high concentrations calcium magnesium oxide causes an increase in temperature and the pH value. This is used for the purification of sewage sludge.

#### *12.1.5 Chronic toxicity to aquatic organisms*

NOEC (14d) for seawater invertebrates: 32 mg/l (calcium dihydroxide)

#### *12.1.6 Toxicity to soil dwelling organisms*

EC<sub>10</sub>/LC<sub>10</sub> or NOEC for soil macroorganisms: 2000 mg/kg soil dry weight (calcium dihydroxide)

EC<sub>10</sub>/LC<sub>10</sub> or NOEC for soil microorganisms: 12000 mg/kg soil dry weight (calcium dihydroxide)

#### *12.1.7 Toxicity to soil plants*

NOEC (21d) for terrestrial plants: 1080 mg/kg (calcium dihydroxide)

#### *12.1.8 General impact*

Acute pH-effect. Although calcium magnesium oxide can be used to neutralize over-acidified water, a concentration in excess of 1 g/l may be harmful to aquatic life. A pH value of > 12 will rapidly decrease due to dilution and carbonation.

#### *12.1.9 Further notes*

The results relating to calcium dihydroxide can be transferred to calcium magnesium oxide since calcium dihydroxide is formed upon contact with moisture.

#### *12.2 Persistence and degradability*

Not applicable to inorganic substances.

#### *12.3 Bioaccumulative potential*

Not applicable to inorganic substances.

#### *12.4 Mobility in soil*

Calcium magnesium oxide reacts with water and/or carbon dioxide to form calcium dihydroxide and/or calcium magnesium carbonate. Due to its low solubility there is little mobility in most soils.

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

Not applicable to inorganic substances.

#### *12.6 Endocrine disrupting properties*

Taking into consideration the criteria pursuant to Regulations (EC) 1907/2006, (EU) 2017/2100 and (EU) 2018/605 no endocrine disrupting properties of calcium magnesium oxide that affect human health are known.

### 12.7 *Other adverse effects*

In accordance with the European regulations for the classification and labelling of substances, classification as hazardous to the environment is not necessary.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 *Waste treatment methods*

Calcium magnesium oxide and containers/packaging that were used for transport/storage shall be disposed of in accordance with national and regional legislation.

Waste code according to the European Waste Catalogue: 10 13 04 (waste from calcination and hydration of lime).

Unused residual amounts of product

Pick up dry, store in labelled containers in accordance with section 7.2 and re-use if possible, taking into account the maximum storage time.

Moist products and product slurry

Do not allow moist products and product slurry to enter sewers or watercourses.

Packaging

Completely empty packaging and recycle (Interseroh). Otherwise dispose of completely empty packaging depending on packaging type according to the European Waste Catalogue, e.g. 15 01 01 (waste paper and cardboard packaging) or 15 01 05 (composite packaging).

## SECTION 14: TRANSPORT INFORMATION

Calcium magnesium oxide is not classified as hazardous for transport pursuant to ADR (Road), RID (Rail), ADN (Inland Waterways) and IMDG (Sea).

However, the main constituent calcium oxide is classified as hazardous for air transport (ICAO/IATA).

### 14.1 *UN number or ID number*

UN 1910

### 14.2 *UN proper shipping name*

Calcium oxide

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

Class 8 (ICAO/IATA).

### 14.4 *Packing group*

Group III (ICAO/IATA).

#### 14.5 Environmental hazards

None

#### 14.6 Special precautions for user

Avoid the release of dust during transportation by using sealed silo tanks for powder and covered loading areas for lump lime.

#### 14.7 Maritime transport in bulk according to IMO instruments

Not relevant.

### SECTION 15: REGULATORY INFORMATION

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

REACH authorisation: None

REACH restrictions on use: None

EU regulations:

Calcium magnesium oxide is not a substance defined in Directive 96/82/EC ("SEVESO"), is not an ozone depleting substance and is not a persistent organic pollutant.

National regulations Germany:

Water hazard class: WGK 1 (slightly hazardous for water)

Classification according to the AwSV.

Storage class: Storage class 13 according to TRGS 510 (non-flammable solids)

#### 15.2 Chemical safety assessment

A chemical safety assessment has been carried out for calcium magnesium oxide in line with the REACH registration.

### SECTION 16: OTHER INFORMATION

All data are based on the current level of knowledge. However, this product safety data sheet expressly does not constitute a guarantee of any specific product characteristics.

#### 16.1 Classifications and hazard statements

Skin Irrit. 2; H315 Skin irritant category 2; Causes skin irritation.

Eye Dam. 1; H318: Irreversible effects on the eyes category 1; Causes serious eye damage.

STOT SE 3; H335 Specific target organ toxicity (single exposure) category 3; May cause respiratory irritation.



### 16.2 Precautionary statements:

P102:	Keep out of reach of children.
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.
P302+P352:	IF ON SKIN: Wash with plenty of water.
P310:	Immediately call a POISON CENTRE or doctor/physician.
P261:	Avoid breathing dust/fume/gas/mist/vapours/spray
P304+P340:	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P501:	Dispose of contents/container to ...

### 16.3 Abbreviations:

AwSV	German Regulation on Facilities Handling Substances that are Hazardous to Water
EC <sub>50</sub> :	Median effective concentration
LC <sub>50</sub> :	Median lethal concentration
LD <sub>50</sub> :	Median lethal dose
NOEC:	No observed effect concentration
OEL:	Occupational exposure limit
DNEL:	Derived no-effect level
PBT:	Persistent, bioaccumulative, toxic chemical
PNEC:	Predicted no-effect concentration
STEL:	Short-term exposure limit
TRGS 402	Technical Rule for Hazardous Substances 402 – Identification and assessment of the risks from activities involving hazardous substances: Inhalation exposure
TRGS 510	Technical Rule for Hazardous Substances 510 – Storage of hazardous substances in non-stationary containers
TRGS 900	Technical Rule for Hazardous Substances 900 – Occupational exposure limits
TWA:	Time weighted average
vPvB:	Very persistent, very bioaccumulative

### 16.4 Key literature references:

Anonymous, 2006: Tolerable upper intake levels for vitamins and minerals, Scientific Committee on Food, European Food Safety Authority, ISBN: 92-9199-014-0 [SCF document]  
 Anonymous, 2008: Recommendation from the Scientific Committee on Occupational Exposure Limits (SCOEL) for calcium oxide (CaO) and calcium dihydroxide (Ca(OH)<sub>2</sub>), European Commission, DG Employment, Social Affairs and Equal Opportunities, SCOEL/SUM/137 February 2008.

Internet:

<http://buaa.de>

<http://publikationen.dguv.de>

<http://echa.europa.eu/de/candidate-list-table>

## 16.5 Revision

No changes were made to the content.

### **Disclaimer:**

*The information provided in this safety data sheet (SDS) is based on the issuer's current state of knowledge in relation to the safety requirements of calcium magnesium oxide. It is expressly noted that the information does not contain a description of the nature of the product and does not constitute a guarantee of characteristics.*

**See also APPENDIX with exposure scenarios 9.1, 9.2, 9.3, 9.4, 9.5, 9.6, 9.7, 9.8, 9.9, 9.10, 9.11, 9.12, 9.13, 9.14, 9.15, 9.16**

End of safety data sheet