



## SECTION 3: Composition / information on ingredients.

### 3.2 Mixtures

#### Description

#### Hazardous ingredients

| CAS No.<br>EC No.<br>Index No. | Substance name<br>REACH No.<br>Classification according to Regulation (EC) No 1272/2008 [CLP]           | weight-%    |
|--------------------------------|---|-------------|
| 1305-62-0<br>215-137-3<br>-    | <b>Calcium dihydroxide</b><br>01-2119475151-45<br>Skin Irrit. 2 H315 / Eye Dam. 1 H318 / STOT SE 3 H335 | 3,00 < 5,00 |

#### Remark

Full text of H- and EUH-statements: see section 16. Full text of H-phrases: see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General information

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

#### Following inhalation

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

#### Following skin contact

Remove contaminated, saturated clothing immediately. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

#### After eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

#### Following ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

#### Self-protection of the first aider

First aider: Pay attention to self-protection!

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

#### Symptoms

In all cases of doubt, or when symptoms persist, seek medical advice.

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

First Aid, decontamination, treatment of symptoms.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

alcohol resistant foam, Carbon dioxide (CO<sub>2</sub>), Powder, spray mist, (water)

#### Unsuitable extinguishing media

Strong water jet

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

Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

### 5.3 Advice for firefighters

Provide a conveniently located respiratory protective device. Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways.

## SECTION 6: Accidental release measures

## 6.1 Personal precautions, protective equipment and emergency procedures

Ventilate affected area. Do not breathe vapours.

## 6.2 Environmental precautions

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

## 6.3 Methods and material for containment and cleaning up

### For containment

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13).

### For cleaning up

Clean using cleansing agents. Do not use solvents.

## 6.4 Reference to other sections

Safe handling: see section 7

Personal protection equipment: refer to section 8

Disposal: see section 13

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Advices on safe handling

Avoid contact with skin, eyes and clothes. Avoid respiration of swarf. Personal protection equipment: see section 8 Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

#### Advices on general occupational hygiene

When using do not eat, drink or smoke.

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

#### Requirements for storage rooms and vessels

Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

#### Hints on joint storage

Keep away from strongly acidic and alkaline materials as well as oxidizers.

#### Further information on storage conditions

Keep container tightly closed. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

### 7.3 Specific end use(s)

Observe technical data sheet.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### \* Occupational exposure limit values

| CAS No.   | Substance name      | Source | Long-term /short-term (Spitzenbegrenzung) |
|-----------|---------------------|--------|---|
| 1305-62-0 | Calcium dihydroxide | WEL    | 5 / - ( - ) mg/m <sup>3</sup>             |
| 1305-62-0 | Calcium dihydroxide | WEL    | 1 / 4 ( - ) mg/m <sup>3</sup>             |

#### Additional information

Long-term: Long-term occupational exposure limit value

short-term: short-term occupational exposure limit value

#### Biological limit values

No data available

### 8.2 Exposure controls

Provide good ventilation. This can be achieved with local or room suction.

## **Personal protection equipment**

### **Respiratory protection**

In case of inadequate ventilation wear respiratory protection.

### **Hand protection**

Suitable material: NBR (Nitrile rubber)  
Thickness of the glove material  $\geq 0,4$  mm  
Breakthrough time  $\geq 480$  min

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin.

Recommended glove articles: EN ISO 374

### **Skin protection**

Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

### **Eye/face protection**

Eye glasses with side protection

### **Body protection**

When handling with chemical substances, protective clothing with CE-labels including the four control digits must be worn.

## **Environmental exposure controls**

Do not allow to enter into surface water or drains.

## **SECTION 9: Physical and chemical properties**

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

#### **Appearance**

Physical state liquid

\* Colour refer to label

#### **Safety characteristics**

|   |                       |
|---|-----------------------|
| Odour                                   | characteristic        |
| Odour threshold                         | not determined        |
| pH                                      | 13,3                  |
| Melting point/freezing point            | not determined        |
| Initial boiling point and boiling range | not determined        |
| Flash point                             | not determined        |
| Evaporation rate at 20°C                | not determined        |
| Burning time                            | not applicable        |
| Lower explosion limit at 20°C           | not determined        |
| Upper explosion limit at 20°C           | not determined        |
| Vapour pressure at 20°C                 | 23 mbar               |
| Density at 20°C                         | 1,036 kg/l            |
| Water solubility at 20°C                | practically insoluble |
| Partition coefficient: n-octanol/water  | see section 12        |
| Ignition temperature in °C              | not determined        |
| Decomposition temperature               | not determined        |
| Viscosity                               | not determined        |
| Explosive properties                    | not relevant          |
| Oxidising properties                    | not relevant          |

### **9.2 Other information**

not applicable

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

### 10.2 Chemical stability

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7.

### 10.3 Possibility of hazardous reactions

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

### 10.4 Conditions to avoid

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7. Hazardous decomposition byproducts may form with exposure to high temperatures.

### 10.5 Incompatible materials

No further relevant information available.

### 10.6 Hazardous decomposition products

Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: Carbon dioxide (CO<sub>2</sub>), Carbon monoxide, smoke.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Based on available data, the classification criteria are not met.

#### **Calcium dihydroxide**

LD50: oral (Rat): > 2.000 mg/kg

LD50: oral (Rat): > 2.000 mg/kg

#### Skin corrosion/irritation

Based on available data, the classification criteria are not met.

#### Serious eye damage/eye irritation

Causes serious eye damage.

#### Respiratory or skin sensitisation

Based on available data, the classification criteria are not met.

#### CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Based on available data, the classification criteria are not met.

#### STOT-single exposure

Based on available data, the classification criteria are not met.

#### STOT-repeated exposure

Based on available data, the classification criteria are not met.

#### Aspiration hazard

Based on available data, the classification criteria are not met.

#### **Practical experience/human evidence**

Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: Headache, Dizziness, fatigue, amyosthenia, Dizziness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

## SECTION 12: Ecological information

### 12.1 Toxicity

Based on available data, the classification criteria are not met.

#### **Acute (short-term) fish toxicity**

- \* **Calcium dihydroxide**  
LC50: (Oncorhynchus mykiss (Rainbow trout)): = 50,6 mg/L (96 h)  
Method: OECD 203

**Acute (short-term) toxicity to algae and cyanobacteria**

- \* **Calcium dihydroxide**  
EC50 (Pseudokirchneriella subcapitata): = 184,57 mg/L (72 h)  
Method: OECD 201

**Calcium dihydroxide**

- \* EC10 (Pseudokirchneriella subcapitata): = 79,22 mg/L (72 h)  
Method: OECD 201

**Acute (short-term) toxicity to crustacea**

- \* **Calcium dihydroxide**  
EC50 (Daphnia magna (Big water flea)): = 49,1 mg/L (48 h)  
Method: OECD 202

**Calcium dihydroxide**

- \* NOEC (Daphnia magna (Big water flea)): = 33,3 mg/L (48 h)  
Method: OECD 202

**12.2 Persistence and degradability**

No information available.

**12.3 Bioaccumulative potential**

No information available.

**12.4 Mobility in soil**

No information available.

**12.5 Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**12.6 Other adverse effects**

No information available.

## SECTION 13: Disposal considerations

**13.1 Waste treatment methods**

**Product/Packaging disposal**

Do not empty into drains; dispose of this material and its container in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

**Waste codes/waste designations according to EWC/AVV**

200115\* - alkalines

**Other disposal recommendations**

Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

## SECTION 14: Transport information

**14.1 UN number**

not applicable

**14.2 UN proper shipping name**

**Land transport (ADR/RID)**

No dangerous good in sense of these transport regulations.

**Sea transport (IMDG)**

No dangerous good in sense of these transport regulations.

**Air transport (ICAO-TI / IATA-DGR)**

No dangerous good in sense of these transport regulations.

**14.3 Transport hazard class(es)**

not applicable

**14.4 Packing group**

not applicable

## 14.5 Environmental hazards

Land transport (ADR/RID) not applicable  
Sea transport (IMDG) not applicable

## 14.6 Special precautions for user

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage. Advices on safe handling: see parts 6 - 8

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

No transport as bulk according to IBC Code.

## 14.8 Additional information

### Land transport (ADR/RID)

not applicable

### Sea transport (IMDG)

not applicable

### Air transport (ICAO-TI / IATA-DGR)

not applicable

## SECTION 15: Regulatory information

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

#### EU legislation

##### Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive 92/85/EEC or stricter national regulations, if applicable.

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC) or stricter national regulations, if applicable.

##### Directive 2010/75/EU on industrial emissions [Industrial Emissions Directive]

VOC-value: 0,046 g/l

##### \* Directive 2004/42/EC on the limitation of emissions of volatile organic compounds

\* VOC limit value 2004/42/IIA(f): 130 g/l (2010)

\* Maximum VOC content (g/L) of the product in a ready to use condition: 0.0457

This product meets the requirements of Regulation (EC) No. 1935/2004 on the limitation of VOC content.

##### Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]

##### Hazard categories / Named dangerous substances

This product is not classified according to Directive 2012/18/EU.

#### National regulations

### 15.2 Chemical Safety Assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

| REACH No.        | Substance name      | CAS No.   | EC No.    |
|------------------|---------------------|-----------|-----------|
| 01-2119475151-45 | Calcium dihydroxide | 1305-62-0 | 215-137-3 |

## SECTION 16: Other information

### Relevant R-, H- and EUH-phrases (Number and full text) Relevant R-and H-phrases (Number and full text):

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

### Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Eye Dam. 1 Calculation method.

### Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road  
OEL: Occupational Exposure Limit Value  
BLV: Biological limit values  
CAS: Chemical Abstracts Service

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CLP: Classification, Labelling and Packaging  
CMR: Carcinogenic, Mutagenic and Reprotoxic  
DIN: German Institute for Standardization / German industrial standard  
DNEL: Derived No-Effect Level  
EAKV: European Waste Catalogue Directive  
EC: Effective Concentration  
EC: European Community  
EN: European Standard  
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations  
IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
ICAO-TI: International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air  
IMDG Code: International Maritime Code for Dangerous Goods  
ISO: International Organization for Standardization  
LC: Lethal Concentration  
LD: Lethal Dose  
MWC: Maximum workplace concentration  
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships  
OECD: Organisation for Economic Cooperation and Development  
PBT: persistent, bioaccumulative, toxic  
PNEC: Predicted No Effect Concentration  
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail  
UN: United Nations  
VOC: Volatile Organic Compounds  
vPvB: very persistent and very bioaccumulative

**Indication of changes**

\* Data changed compared with the previous version