# SAFETY DATA SHEET

prepared in accordance with Annex II of the REACH Regulation EC 1907/2006, Regulation (EC) 1272/2008, Regulation (EC) 453/2010 and Regulation (EC) 830/2015.

Version *4.0*

Revision Date 27.07.2017 Print Date 12.09.2017

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

### 1.1. Product identifier

| | |
|---|---|
| **Product name** | **Calcium carbonate (natural)** |
| Synonyms | Calcite, Aragonite, Marble, Chalk, Fluxstone, Ground Calcium Carbonate (GCC).<br>Please note that this list may not be exhaustive. |
| **Trade name** | **Calcium carbonate (natural)** |
| Chemical name - Formula | Calcium carbonate - CaCO3 |
| CAS-No. | 1317-65-3 |
| EC-No. | 215-279-6 |
| Molecular weight | 100,09 g/mol |
| REACH Registration Number | This substance is exempt from registration according to Regulation (EC) No. 1907/2006 (REACH). |

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

Find hereunder a general description of uses.

Manufacture of chemical products
Manufacture of basic metals, including alloys
Agriculture, forestry, fishery
Environmental protection
Water treatment chemicals
Food/ feedstuff additives
Manufacture of food products
Pharmaceuticals
Mining, (including offshore industries)
Manufacture of other non-metallic mineral products, e.g. plasters, cement
Paper articles
Manufacture of paints, varnishes and similar coatings, printing ink and mastics
Stone, plaster, cement, glass and ceramic articles
Building and construction work

Based on current knowledge there are no identified uses of the product, which are advised against.

### 1.3. Details of the supplier of the safety data sheet

| | |
|---|---|
| Company | **Faxe Kalk A/S** |

| | |
|---|---|
| Address | Hovedgaden 13<br>4654 Faxe Ladeplads<br>Denmark |
| Telephone | +4556763500 |
| Telefax | +4556763501 |
| E-mail of competent person responsible for SDS in the MS or in the EU: | msds@faxekalk.dk |

### 1.4. Emergency telephone number

| | |
|---|---|
| Emergency telephone number (Europe) | **112**<br>***This telephone number is available 24 hours per day, 7 days per week.*** |
| Poison Information Centre telephone number | + 45 82 12 12 12 (Giftlinien) for Denmark. |
| Emergency telephone number (Company) | **+4556763500**<br>***This telephone number is available during office hours only.*** |

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

**Further information**

For the full text of the H-Statements mentioned in this Section, see Section 16.

### 2.2. Label elements

Hazard pictograms
Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Signal word
Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Hazard statements
Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Precautionary statements
Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

### 2.3. Other hazards

No other hazards identified.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

| Chemical name | CAS-No. | EC-No. | REACH No. | Index-No. | Weight percent |
|---|---|---|---|---|---|
| Calcium carbonate | 1317-65-3 | 215-279-6 | — | — | - <100 |

Degree of purity (%): No impurities relevant for classification and labelling

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

| | |
|---|---|
| General advice | When symptoms persist or in all cases of doubt seek medical advice. |
| Inhalation | Move to fresh air.<br>If symptoms persist, call a physician. |
| 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. Remove contaminated clothing.<br>If symptoms persist, call a physician. |
| Eye contact  | In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Rinse thoroughly with plenty of water, also under the eyelids. |
| Ingestion | Immediately give large quantities of water to drink.<br>If symptoms persist, call a physician.<br>Do NOT induce vomiting. |

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

No known delayed effects.

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

Follow the advice given in section 4.1.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

| | |
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| Suitable extinguishing media | The product does not burn. Use dry powder, foam or CO2 type of fire extinguishers to fight the surrounding fire. |
| Unsuitable extinguishing media | none |

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

When heated above 600°C, calcium carbonate decomposes to produce calcium oxide (CaO) and carbon dioxide (CO2). Calcium oxide reacts with water and generates heat. This may cause risk to flammable material.

### 5.3. Advice for firefighters

No special precautions required.

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| **SECTION 6: Accidental release measures** | |
| **6.1. Personal precautions, protective equipment and emergency procedures** | |
| **6.1.1. Advice for non-emergency personnel** | Ensure adequate ventilation.<br>Keep dust levels to a minimum.<br>Keep unprotected persons away.<br>Avoid contact with skin, eyes, and clothing – wear suitable protective equipment (see section 8).<br>Avoid inhalation of dust – ensure that sufficient ventilation or suitable respiratory protective equipment is used, wear suitable protective equipment (see section 8). |
| **6.1.2. Advice for emergency responders** | See section 6.1.1 |
| **6.2. Environmental precautions** | |
| No special environmental precautions required. | |
| **6.3. Methods and materials for containment and cleaning up** | |
| Use vacuum suction unit, or shovel into bags.<br>Pick up and arrange disposal without creating dust.<br>Keep in suitable, closed containers for disposal.<br>To clean the floor and all objects contaminated by this material, use plenty of water.<br>Keep away from acids. | |
| **6.4. Reference to other sections** | |
| For more information on exposure controls/personal protection or disposal considerations, please check section 8 and 13. | |
| **SECTION 7: Handling and storage** | |
| **7.1. Precautions for safe handling** | |
| **7.1.1. Protective measures** | Avoid contact with skin and eyes.<br>Keep dust levels to a minimum. Minimise dust generation. Enclose dust sources, use exhaust ventilation (dust collector at handling points).<br>Handling systems should preferably be enclosed.<br>When handling bags usual precautions should be paid to the risks outlined in the Council Directive 90/269/EEC.<br>Do not breathe vapours/dust. |
| **7.1.2. Advice on general occupational hygiene** | Avoid inhalation, ingestion and contact with skin and eyes.<br>General occupational hygiene measures are required to ensure safe handling of the substance. These measures involve good personal and housekeeping practices (i.e. regular cleaning with suitable cleaning devices), no drinking, eating and |

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| | smoking at the workplace. Shower and change clothes at end of work shift. Do not wear contaminated clothing at home. |

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

Bulk storage should be in purpose designed silos.
Keep out of the reach of children.
Do not store near acids.
Keep in a dry place.
Keep tightly closed.

## 7.3. Specific end use(s)

None

# SECTION 8: Exposure controls/personal protection

## 8.1. Control parameters

**Occupational exposure limit**

| Chemical name | Form | Limit value | Legal basis |
|---|---|---|---|
| Calcium carbonate | Mineral dust inert<br>Mineral dust inert , respirable | 10 mg/m3<br>5 mg/m3 | No data available |

**Derived No Effect Level**

**Workers**

| Chemical name | Exposure routes | Acute local effects | Acute systemic effects | Long-term local effects | Long-term systemic effects |
|---|---|---|---|---|---|
| Calcium carbonate | Oral | Not required | Not required | Not required | Not required |
| | Inhalation | No hazard identified | No hazard identified | No hazard identified | 10 mg/m3 |
| | Dermal | No hazard identified | No hazard identified | No hazard identified | No hazard identified |

**Consumers**

| Chemical name | Exposure routes | Acute local effects | Acute systemic effects | Long-term local effects | Long-term systemic effects |
|---|---|---|---|---|---|
| Calcium carbonate | Oral | no exposure expected | 6,1 mg/kg bw/day | no exposure expected | 6,1 mg/kg bw/day |
| | Inhalation | No hazard identified | No hazard identified | No hazard identified | 10 mg/m3 |
| | Dermal | No hazard identified | No hazard identified | No hazard identified | No hazard identified |

**Predicted No Effect Concentration**

| Chemical name | Environmental protection target | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Fresh water | Fresh water sediment | Marine water | Marine sediment | Food chain | Microorganisms in sewage treatment | Soil | Air |
| Calcium carbonate | No hazard identified | No hazard identified | No hazard identified | No hazard identified | No hazard identified | 100 mg/l | No hazard identified | No hazard identified |

## 8.2. Exposure controls

To control potential exposures, generation of dust should be avoided. Further, appropriate protective equipment is recommended. Eye protection equipment (e.g. goggles or visors) must

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| be worn, unless potential contact with the eye can be excluded by the nature and type of application (i.e. closed process). Additionally, face protection, protective clothing and safety shoes are required to be worn as appropriate. | |
| | |
| **8.2.1. Appropriate engineering controls** | Handling systems should preferably be enclosed or suitable ventilation installed to maintain atmospheric dust below the OES, if not wear suitable protective equipment. |
| | |
| **8.2.2. Individual protection measures, such as personal protective equipment** | |
| | |
| **8.2.2.1. Eye/face protection**  | Chemical resistant goggles must be worn.<br>Do not wear contact lenses.<br>For powders, tight fitting goggles with side shields, or wide vision full goggles. It is also advisable to have individual pocket eyewash. |
| **8.2.2.2. Skin protection**  | Use approved nitrile impregnated gloves having CE marks.<br>Use clothing fully covering skin, full length pants, long sleeved overalls, with close fittings at openings. Footwear resistant to caustics and avoiding dust penetration. |
| **8.2.2.3. Respiratory protection**  | Use appropriate respiratory protection against particles according to the risk level. |
| **8.2.2.4. Thermal hazards** | The substance does not represent a thermal hazard, thus special consideration is not required. |
| | |
| **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** | |
| | |
| Appearance: | Colour: white off-white beige<br>Form: pebble granules powder solid |
| Odour: | odourless |
| Odour Threshold: | Not applicable |
| pH: | 8 - 9; > 20 mg/l; 25 °C |
| Melting point: | T> 600°C: $CaCO_3 \rightarrow CaO + CO_2$ |
| Boiling point: | Not applicable (solid with a melting point > 450°C) |
| Flash point: | Not applicable (inorganic substance). |
| Evaporation rate: | Not applicable |
| Flammability: | The substance is not flammable.<br>Lower flammability limit: No data available<br>Upper flammability limit: No data available |
| Explosive properties: | Not explosive<br>Upper/Lower explosion limit<br>lower: No data available |

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|---|---|
| | upper: No data available |
| Vapour pressure: | Not applicable |
| Vapour density: | Not applicable |
| Relative density: | 2.710 - 2.940 g/cm3; 20 °C |
| Bulk density | 900 - 1.500 kg/m3; 20 °C |
| Solubility(ies): | 16,6 mg/l; 20 °C; OECD Test Guideline 105; |
| Partition coefficient: n-octanol/water: | Not applicable (inorganic substance). |
| Auto-ignition temperature: | No relative self-ignition temperature below 400°C (study result, EU A.16 method) |
| Decomposition temperature: | When heated above 600°C, calcium carbonate decomposes to produce calcium oxide (CaO) and carbon dioxide (CO2). |
| Viscosity, kinematic: | Not applicable |
| Oxidizing properties: | No oxidising properties. (Based on the chemical structure, the substance does not contain a surplus of oxygen or any structural groups known to be correlated with a tendency to react exothermally with combustible material). |

**9.2. Other information**

No data available

## SECTION 10: Stability and reactivity

**10.1. Reactivity**

Stable under recommended storage conditions.

**10.2. Chemical stability**

Exothermic reaction with acids.

**10.3. Possibility of hazardous reactions**

The product reacts exothermically with acids.

**10.4. Conditions to avoid**

For information on conditions to avoid, please see section 7.

**10.5. Incompatible materials**

Acids

**10.6. Hazardous decomposition products**

Decomposes by reaction with strong acids.
For hazardous decomposition products resulting from heat, please see section 5.

## SECTION 11: Toxicological information

**11.1. Information on toxicological effects**

**Acute toxicity**
Oral LD50 > 2000 mg/kg bw (OECD 420, rat)

Dermal LD50 > 2000 mg/kg bw (OECD 402, rat)
Inhalation LC50 (4h) > 3 mg/L air (OECD 403, rat)
The substance is of low order of acute toxicity by inhalation, dermal and oral routes of exposure.

**Skin corrosion/irritation**
(rabbit), method OECD 404 - not irritating.

**Serious eye damage/eye irritation**
(rabbit), method OECD 405 - not irritating.

**Respiratory or skin sensitisation**
Does not cause skin sensitisation.

**Germ cell mutagenicity**
In vitro tests did not show mutagenic effects

**Carcinogenicity**
Calcium (administered as Ca-lactate) is not carcinogenic (experimental result, rat). The pH effect of the product does not give rise to a carcinogenic risk. Human epidemiological data support lack of any carcinogenic potential of the product.
Classification for carcinogenicity is not warranted.

**Reproductive toxicity**
Calcium (administered as Ca-carbonate) is not toxic to reproduction (experimental result, mouse). The pH effect does not give rise to a reproductive risk.
Human epidemiological data support lack of any potential for reproductive toxicity of the product. Both in animal studies and human clinical studies on various calcium salts no reproductive or developmental effects were detected. Also see the Scientific Committee on Food (Section 16.6).Thus, the product is not toxic for reproduction and/or development.
Classification for reproductive toxicity according to regulation (EC) 1272/2008 is not required.

**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**
The product is not known to present an aspiration hazard.

## SECTION 12: Ecological information

### 12.1. Toxicity

| | |
|---|---|
| **12.1.1. Toxicity to fish** | Oncorhynchus mykiss (rainbow trout); LC50 >100% v/v; 96 h; OECD Test Guideline 203; Exceeds maximum solubility of substance. |
| **12.1.2. Toxicity to aquatic invertebrates** | No data available |

| | |
|---|---|
| **12.1.3. Toxicity to aquatic plants** | Desmodesmus subspicatus (green algae); EC50; 72 h; > 14 mg/l; OECD Test Guideline 201; Exceeds maximum solubility of substance. |
| **12.1.4. Toxicity to microorganisms / Toxicity to bacteria** | activated sludge; EC50; 3 h; > 1.000 mg/l; OECD Test Guideline 209; Not toxic |
| **12.1.5. Toxicity to daphnia and other aquatic invertebrates** | Daphnia magna (Water flea); LC50 >100% v/v; 48 h; OECD Test Guideline 202; Exceeds maximum solubility of substance. |
| **12.1.6. Toxicity to soil dwelling organisms** | Soil microorganisms; EC50; 28 d; OECD Test Guideline 216; Not toxic<br>Eisenia fetida (earthworms); LC50; 14 d; OECD Test Guideline 207; Not acutely toxic |
| **12.1.7. Toxicity to terrestrial plants** | Avena sativa (oats); EC50; 21 d; OECD Test Guideline 208; Not acutely toxic |
| **12.1.8. Other effects** | Calcium carbonate is a common natural mineral sparingly soluble, which exists in all surface waters (lakes, rivers). |
| **12.1.9. Other information** | None |

**12.2. Persistence and degradability**

The methods for determining biodegradability are not applicable to inorganic substances.

**12.3. Bioaccumulative potential**

Not relevant for inorganic substances.

**12.4. Mobility in soil**

Calcium carbonate is sparingly soluble, and so presents a low mobility in most ground.

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

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

**12.6. Other adverse effects**

No other adverse effects are identified.

## SECTION 13: Disposal considerations

**13.1. Waste treatment methods**

Reuse or recycle whenever possible.
If the reuse or recycling is not possible, disposal must be made according to local and national regulation.
Processing, use or contamination of this product may change the waste management options.
Waste classification code must be determined at the point of waste generation.
Dispose of container and unused contents in accordance with applicable member state and local requirements.
The used packaging is only meant for packing this product; it should not be reused for other purposes.

## SECTION 14: Transport information

The product is not classified as hazardous for transport (ADR (Road), RID (Rail), IMDG / GGVSea (Sea)).

### 14.1. UN number

not regulated

### 14.2. UN proper shipping name

not regulated

### 14.3. Transport hazard class(es)

### 14.4. Packing group

### 14.5. Environmental hazards

None.

### 14.6. Special precautions for user

Avoid any release of dust during transportation, by using air-tight tanks for powders and covered trucks for pebbles.

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not regulated

## SECTION 15: Regulatory information

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

| | |
|---|---|
| Authorisations | Not required |
| Restrictions on use | None |
| Other regulations (European Union) | The product is not a SEVESO substance, not an ozone depleting substance and not a persistent organic pollutant. |
| National regulatory information | German legislation on water endangering substances VwVwS<br>not water endangering (nwg) |

### 15.2. Chemical safety assessment

This substance is exempt from registration according to Regulation (EC) No. 1907/2006 (REACH).

## SECTION 16: Other information

Data are based on our latest knowledge but do not constitute a guarantee for any specific product features and do not establish a legally valid contractual relationship.

| 16.1. Hazard statements | |
|---|---|
| | Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008. |
| **16.2. Precautionary statements** | |
| | Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008. |
| **16.3. Abbreviations** | |
| | DNEL: Derived no effect level<br>EC50: median effective concentration<br>LC50: median lethal concentration<br>LD50: median lethal dose<br>NOEC: no observable effect concentration<br>OEL: occupational exposure limit<br>PBT: persistent, bioaccumulative, toxic chemical<br>PNEC: predicted no-effect concentration<br>SDS: Safety data sheet<br>STEL: short-term exposure limit<br>STOT: specific target organ toxicity<br>TWA: time weighted average<br>vPvB: very persistent, very bioaccumulative chemical |

**16.4. Literary reference**

The European Calcium Carbonate Association
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]
Data sheet prepared in accordance with:
Annex II of the REACH Regulation (EC) 1907/2006.
References:
1.Council Directive 90/269/EEC
2.Booklet L64 - Safety Signs and Signals. The Health and Safety (Safety Signs and Signals) Regulations 1996 - Guidance on Regulations (HSE) - ISBN 978 0 7176 6359 0
3. http://echa.europa.eu/web/guest/information-on-chemicals/registered-substances
4.The Merck Index (Ed. Merck & Co, Rahway, USA)

**16.5. Additions, Deletions, Revisions**

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

**Disclaimer**

This safety data sheet (SDS) is based on the legal provisions of the REACH Regulation (EC 1907/2006; article 31 and Annex II), as amended. Its contents are intended as a guide to the appropriate precautionary handling of the material. It is the responsibility of recipients of this SDS to ensure that the information contained therein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. Information and instructions provided in this SDS are based on the current state of scientific and technical knowledge at the date of issue indicated. It should not be construed as any

guarantee of technical performance, suitability for particular applications, and does not establish a legally valid contractual relationship. This version of the SDS supersedes all previous versions.

**End of Safety Data Sheet**