

## Product Data Sheet FOOD/PHARMA/COSMETIC

# Calcium Carbonate

INCI name: Calcium Carbonate

**CAS no.** 471-34-1    **EINECS no.** 207-439-9    **HS no.** 28365000    **INCI no.** 388

### General Characteristics

<b>Formula</b>	CaCO <sub>3</sub>
<b>Molecular weight</b>	100.1 g/mol
<b>Metal content</b>	approx. 40 % Ca
<b>Solubility (20 °C)</b>	--
<b>pH (1 %)</b>	approx. 9.5
<b>Odor</b>	neutral
<b>Flavor</b>	neutral

++ > 100 g/l | + 10 - 100 g/l | - 1 - 10 g/l | -- < 1 g/l

The solubility specified here was measured in water. The solubility is influenced by many factors in the application.

### Product

Product no.	Quality	Physical appearance
512006210	Ph. Eur.   USP   BP   FCC   E 170	powder
512006003	Ph. Eur.   USP   E 170	micronized powder

### Product Specialties

Product	Product no.	Bulk density (g/l)	Product information	Metal content
Calcium Carbonate DC 97GA	512006018	approx. 750	granules, directly compressible with 3 % gum arabic	approx. 39 % Ca
Calcium Carbonate, micronized DC 97GA	512006019	-	granules, directly compressible with 3 % gum arabic	approx. 39 % Ca
Calcium Carbonate DC 90M	512006009	approx. 750	granules, directly compressible with 10 % maltodextrin	approx. 36 % Ca
Calcium Carbonate DC 95M	512006006	approx. 1000	granules, directly compressible with 5 % maltodextrin	approx. 37 % Ca
Calcium Carbonate DC 90S	512006004	approx. 1000	granules, directly compressible with 10 % corn starch	approx. 36 % Ca
Calcium Carbonate DC 95S	512006005	approx. 1000	granules, directly compressible with 5 % corn starch	approx. 38 % Ca
Calcium Carbonate DC 97P	512006008	approx. 1000	granules, directly compressible with 3 % PVP	approx. 39 % Ca

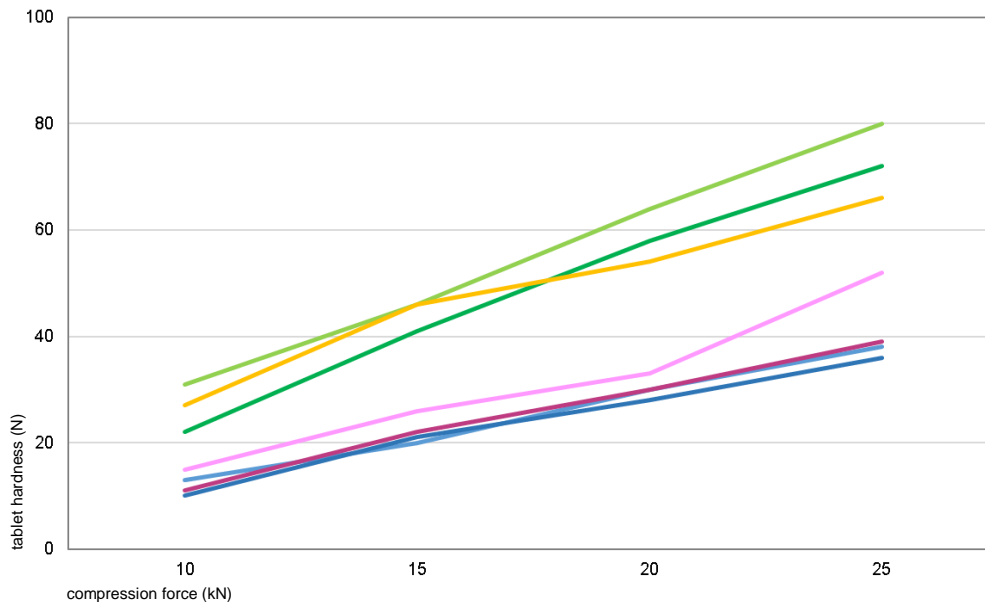
# Calcium Carbonate

## Key Features

- ◆ Mineral Salt from natural origin with a high Calcium content and a high bulk density of approx. 800 g/l
- ◆ Micronized Calcium Carbonate offers a pleasant mouth feeling
- ◆ On request strongest microbiological parameters can be achieved by a sophisticated process
- ◆ Special product safety due to Dr. Paul Lohmann® quality assurance measures
- ◆ DC Granules with different binders for tableting and all applications where a non-dusty product is mandatory
- ◆ Combination of micronization and granulation leads to new and innovative application opportunities
- ◆ It is used as an active pharmaceutical ingredient (API) to prevent and treat calcium deficiency and hyperphosphatemia, and as an antacid for heartburn and acid regulation
- ◆ In the final drug form, Calcium Carbonate is used as a coating agent, wet binder, diluent and pH regulator
- ◆ In cosmetics, Calcium Carbonate is used in skin care as pH adjuster and opacifying agent, and in oral care as remineralizing agent and abrasive cleaner

## Compression Characteristics of DC Granules

### Tablet hardness vs. compression force



- ◆ Calcium Carbonate DC 97GA
- ◆ Calcium Carbonate, micronized DC 97GA
- ◆ Calcium Carbonate DC 90M
- ◆ Calcium Carbonate DC 95M
- ◆ Calcium Carbonate DC 90S
- ◆ Calcium Carbonate DC 95S
- ◆ Calcium Carbonate DC 97P

# Calcium Carbonate

## Particle Size Distribution

Product no.	Particle size		
	d50	d90	d97
512006210	approx. 5 µm	approx. 20 µm	approx. 25 µm
512006003	approx. 3 µm	approx. 6 µm	approx. 10 µm

Product	Product no.	Particle size distribution (%)			
		> 500 µm	500-300 µm	300-100 µm	< 100 µm
Calcium Carbonate DC 97GA	512006018	17	27	53	4
Calcium Carbonate, micronized DC 97GA	512006019	38	29	25	8
Calcium Carbonate DC 90M	512006009	9	14	47	30
Calcium Carbonate DC 95M	512006006	15	17	62	6
Calcium Carbonate DC 90S	512006004	15	30	46	9
Calcium Carbonate DC 95S	512006005	13	23	51	14
Calcium Carbonate DC 97P	512006008	23	23	47	8

Particle size depends on measurement method. The values given are typical size ranges.

## Legal Permission acc. to EU Food Regulation

- ◆ Food<sup>1</sup>
- ◆ Food supplements<sup>2</sup>
- ◆ Infant formulae and follow-on formulae<sup>3</sup>
- ◆ Processed cereal-based foods and baby foods for infants and young children<sup>3</sup>
- ◆ Food for special medical purposes<sup>3</sup>
- ◆ Total diet replacement for weight control<sup>3</sup>
- ◆ Food additive<sup>4</sup>

## Allergen

The above-mentioned substances do not contain allergens according to:

- ◆ Regulation (EU) No 1169/2011 of the European Parliament and of the Council on the provision of food information to consumers
- ◆ Food Allergen Labeling and Consumer Protection Act of 2004 (FALCPA)
- ◆ RESOLUÇÃO DA DIRETORIA COLEGIADA - RDC N° 26/2015 (Brazil)
- ◆ National food safety standard General Rules for the labeling of prepackaged foods GB7718-2011 (China)
- ◆ Specifications and Standards for Foods, Food Additives, etc. Under the Food Sanitation Act 2010 (Japan)

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## Vegan/Vegetarian

The above-mentioned substances do not contain any animal derived products. They are compatible with vegetarian and vegan diet.

## Nutritional Data

(based on the pure product)

Nutrition declaration according to Regulation (EC) No. 1169/2011

Basis: typical calculated values for 100 g product

Energy	0 / 0		kJ/kcal	Minerals		
Carbohydrate			g	Aluminium	-	g
- of which, sugars	-		g	Ammonium	-	g
polyols	-		g	Calcium	approx. 40	g
starches	-		g	Chloride	-	g
				Chromium	-	g
Fat			g	Copper	-	g
- of which, saturates	-		g	Iodine	-	g
mono-unsaturates	-		g	Iron	-	g
poly-unsaturates	-		g	Lithium	-	g
Protein	-		g	Magnesium	-	g
				Manganese	-	g
Fibre	-		g	Molybdenum	-	g
Alcohol	-		g	Phosphorus	-	g
Organic acid	-		g	Potassium	-	g
Salt (Calculated from sodium content)	-		g	Selenium	-	g
				Sodium	-	g
				Strontium	-	g
				Zinc	-	g

## Product Documentation

- ◆ Kosher
- ◆ Halal
- ◆ GMO-free
- ◆ BSE/TSE-free
- ◆ Cosmetic statement on request

## Retest Period

36 months

24 months: 512006210

## Storage Conditions

Keep well closed, dry and at room temperature

# Calcium Carbonate

## Packaging

25 kg – different types of packaging are available on request

## Certification

Our company is GMP (according part II – active pharmaceutical substances), FSSC 22000/ISO 22000 and DIN EN ISO 9001 certified, and our products are: Made in Germany.

In March 2012 our production site in Emmerthal was successfully inspected by the FDA (U.S. Food and Drug Administration) in the context of FSMA (food safety modernization act).

## References

- <sup>1</sup> Regulation (EC) No 1925/2006 of the European Parliament and of the Council on the addition of vitamins and minerals and of certain other substances to foods
- <sup>2</sup> Directive 2002/46/EC of the European Parliament and of the Council on the approximation of the laws of the Member States relating to food supplements
- <sup>3</sup> Regulation (EU) No 609/2013 of the European Parliament and of the Council on food intended for infants and young children, food for special medical purposes, and total diet replacement for weight control
- <sup>4</sup> Regulation (EC) No 1333/2008 of the European Parliament and of the Council on food additives