Dr. Paul Lohmann®

Product Data Sheet FOOD/PHARMA

Calcium Lactate PLUS

Synonyms: Calcium Lactate with 5 % malic acid

CAS no.	28305-25-1 6915-15-7	**EINECS no.**	6915-15-7 230-022-8	**HS no.**	29181100

General Characteristics

Formula	$C_6H_{10}CaO_6$ (+ $C_4H_6O_5$)
Molecular weight	218.2 g/mol (+ 134.1 g/mol)
Metal content	approx. 17.5 % Ca
Solubility (20 °C)	+
pH (5 %)	approx. 5
Odor	neutral
Flavor	neutral, slightly sour
Quality	food grade

++ > 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.

The data given here are typical values. Only the data given in the specifications are binding.

Product

Product	Product no.	Physical appearance	Behaviour
Calcium Lactate PLUS	512083001	powder	highly clear soluble
Calcium Lactate PLUS	512083003	coarse powder	highly clear soluble

The data given here are typical values. Only the data given in the specifications are binding.

Key Features

Solubility

Our Calcium Lactate PLUS is a mixture of approx. 95 % Calcium Lactate and 5 % malic acid. It is characterized by a higher Calcium content compared to common Calcium Lactate. Due to its good water solubility Calcium Lactate PLUS is used for fortification of beverages.

Comparison	Assay	max. soluble Calcium
Calcium Lactate (standard)	approx. 13 % Ca	approx. 0.91 g Ca/100 ml
Calcium Lactate PLUS (all types)	**approx. 17.5 % Ca**	**approx. 1.2 g Ca/100 ml**

Solubility in dem. water; the complete material is stirred continuously and slowly into water.

Dosage

The recommended daily intake of Calcium is 800 mg according to Directive (EC) No. 1169/2011.
Calcium Lactate PLUS contains 35 % more calcium than a common calcium lactate. Therefore, beverage fortification with Calcium Lactate PLUS is more economic.

Comparison	Dosage for 100 ml beverage		
	15 % NRV[1]	30 % NRV[1]	100 % NRV[1]
Calcium Lactate (standard)	approx. 0.9 g	approx. 1.8 g	approx. 5.9 g
Calcium Lactate PLUS (all types)	**approx. 0.7 g**	**approx. 1.4 g**	**approx. 4.4 g**

[1] Nutrient Reference Value

Calcium Lactate PLUS

Typical Application Areas

Calcium Lactate PLUS is a highly soluble Calcium Salt and is designed for Calcium fortification of:

- Beverages (e.g. fruit juices, nectars, lemonades, near water, sports drinks, milk and yoghurt drinks)
- Drink bases and concentrates
- Instant drink powders
- Nutritional supplements

Advantages

- Compared to standard calcium lactate Calcium Lactate PLUS shows
  - Considerably improved solubility
  - Steady solubility even in applications with a high pH-value
  - Freeze stable, clear solution after thawing
  - Increased dissolved calcium content
  - Much less quantity is needed to achieve the required calcium level for the final product
- In a concentration of 15 % NRV Calcium Lactate PLUS leaves absolutely no off-product taste or color
- Declaration
  - Calcium Lactate PLUS consists of Calcium Lactate and malic acid. Both ingredients are approved as food additives in the EU
  - In the US, Calcium Lactate is considered as GRAS (Generally Recognized As Safe) by the Food and Drug Administration (FDA). Malic acid has the status GRAS/FS and underlies a quantity restriction in some products

Particle Size Distribution

Product no.	Particle size d50
512083001	approx. 15 µm
512083003	approx. 50 µm

Particle size depends on measurement method. The values given are typical size ranges. Only the data given in the specifications are binding.

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° 727/2022 ANEXO III (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)
- Food and Drugs Act, Natural Health Products Regulations SOR/2003-196 (Canada)

Vegan/Vegetarian

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

The information given in the document corresponds to our current knowledge. We warrant in the frame of our General Terms and Conditions of Sale that our products are manufactured in accordance with the specifications. However, we disclaim any liability with regard to the suitability of our products for a particular purpose or application or their compatibility with other substances. Tests have to be performed by the customer who also bears the risk in this respect. Nothing herein shall be construed as a recommendation to use our products in conflict with third parties' rights.

Calcium Lactate PLUS

Nutritional Data

Nutrition declaration according to Regulation (EC) No. 1169/2011
Basis: typical calculated values for 100 g product

Energy		1040 / 240	kJ/kcal
Carbohydrate			g
- of which,	sugars	-	g
	polyols	-	g
	starches	-	g
Fat			g
- of which,	saturates	-	g
	mono-unsaturates	-	g
	poly-unsaturates	-	g
Protein		-	g
Fibre		-	g
Alcohol		-	g
Organic acid		approx. 80	g
- of which,	lactic acid	approx. 76	g
	malic acid	approx. 4	g
Salt (Calculated from sodium content)		-	g

Minerals		
Aluminium	-	g
Ammonium	-	g
Calcium	approx. 17.5	g
Chloride	-	g
Chromium	-	g
Copper	-	g
Iodine	-	g
Iron	-	g
Lithium	-	g
Magnesium	-	g
Manganese	-	g
Molybdenum	-	g
Phosphorus	-	g
Potassium	-	g
Selenium	-	g
Sodium	-	g
Strontium	-	g
Zinc	-	g

Product Documentation

- Kosher
- Halal
- GMO-free
- BSE/TSE-free

Retest Period

24 months

Storage Conditions

Keep well closed, dry and at room temperature

Packaging

25 kg – different types of packaging are available on request

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Calcium Lactate PLUS

Certification

Our company is GMP (according part II – active pharmaceutical substances), FSSC 22000 and DIN EN ISO 9001 certified, and our products are: Made in Germany.
Dr. Paul Lohmann GmbH & Co. KGaA and Dr. Paul Lohmann Inc. are committed to and comply the appropriate FSMA (food safety modernization act).

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