



TECHNICAL DATA SHEET

Product Name: Calcium Lactate

Chemical Formula: $C_6H_{10}CaO_6 \cdot xH_2O$

CAS Number: 814-80-2

E Number: E327

EINECS Number: 212-406-7

EC Number: 296-618-2

Molecular Weight: 218.22 g/mol (anhydrous basis)

1. Product Description

Calcium Lactate is the calcium salt of lactic acid, commonly used as a food additive, nutritional supplement, stabilizer, and firming agent. It is highly soluble in water and offers good bioavailability of calcium, making it suitable for applications in food, beverages, pharmaceuticals, and dietary supplements.

2. Specifications

Parameter	Specification
Appearance	White crystalline powder or granules
Assay (Ca content)	98.0 – 101.0% (on dry basis)
Calcium content	13.0 – 14.5%
Solubility	Freely soluble in hot water, slightly soluble in cold water, insoluble in ethanol
Loss on drying	$\leq 2.0\%$
pH (1% solution)	6.0 – 8.0
Heavy metals (Pb)	≤ 10 ppm
Arsenic (As)	≤ 2 ppm
Fluoride (F)	≤ 50 ppm
Residue on ignition	$\leq 1.0\%$
Total plate count	≤ 1000 cfu/g
Yeast & Mold	≤ 100 cfu/g
Salmonella	Negative
E. coli	Negative

3. Applications

Food & Beverage Industry: Used as a firming agent, stabilizer, acidity regulator, and calcium fortifier in beverages, dairy products, jellies, bakery, and confectionery.

Nutraceuticals & Dietary Supplements: Source of bioavailable calcium for tablets, capsules, and functional foods.

Pharmaceutical Industry: Calcium supplement in tablets and syrups to support bone health and prevent calcium deficiency.

Agriculture & Feed Industry: As a mineral additive in animal feed to improve growth and bone strength.

4. Packaging

25 kg paper bags / drums with inner polyethylene liner

Jumbo bags or customized packaging available upon request

5. Storage & Handling

Store in a cool, dry, and well-ventilated area.

Keep container tightly closed and protect from moisture.

Avoid direct sunlight and strong oxidizing agents.

6. Shelf Life

24 months under proper storage conditions in original unopened packaging.

7. Safety & Regulatory Information

Classification: Generally Recognized As Safe (GRAS) by FDA

Food Grade Status: EU (E327), FCC, USP, BP compliant

Handling: Avoid inhalation of dust; use protective equipment when handling large quantities.

