



TECHNICAL DATA SHEET

Product Name: Calcium L-Aspartate

CAS Number: 10389-09-0

Molecular Formula: $C_4H_5CaNO_4$ (simplified form, may vary by hydration state)

Molecular Weight: ~183.18 (anhydrous basis)

EINECS No.: Not well defined / not allocated (or 233-788-1 depending on grade reference)

EC Code: Not allocated

1. Product Description

Calcium L-Aspartate is a chelated organic calcium compound formed from L-aspartic acid and calcium. It appears as a white to off-white powder with good solubility and bioavailability. Compared with inorganic calcium salts, it offers improved absorption and lower gastrointestinal irritation. It is widely used in dietary supplements, functional foods, and pharmaceutical formulations as a high-quality calcium source combined with amino acid nutritional benefits.

2. Specification

Parameter	Specification
Appearance	White to off-white powder
Assay (as Calcium)	≥ 20.0%
Assay (as L-Aspartate)	≥ 75.0%
Solubility	Freely soluble in water
pH (1% solution)	6.0 – 8.0
Loss on Drying	≤ 10.0%
Heavy Metals (Pb)	≤ 10 ppm
Arsenic (As)	≤ 2 ppm
Chloride	≤ 0.05%
Sulfate	≤ 0.05%
Microbiological Standards	
Total Plate Count	≤ 1000 CFU/g
Yeast & Mold	≤ 100 CFU/g

Parameter	Specification
E. coli	Negative
Salmonella	Negative

3. Applications

- Dietary supplements – calcium and amino acid nutrition
 - Functional foods – bone health formulations
 - Sports nutrition – mineral and recovery products
 - Pharmaceutical preparations – calcium supplementation tablets/capsules
 - Nutritional beverages – fortified drinks
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4. Packaging & Storage

- **Packaging:** 25 kg net weight per fiber drum or kraft paper bag with inner PE liner
 - **Shelf Life:** 24 months under recommended storage conditions
 - **Storage Conditions:** Store in a cool, dry place, away from moisture, heat, and direct sunlight
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5. Regulatory Status

- Food grade / pharmaceutical grade (depending on specification)
- Complies with **FCC / USP / EP (if applicable)** standards
- Manufactured under ISO and HACCP-certified facilities
- Non-GMO, allergen-free, BSE/TSE-free