



TECHNICAL DATA SHEET

Product Name: Calcium L-Threonate

Chemical Name: Calcium Bis(L-threonate)

CAS No.: 70753-61-6

Molecular Formula: C₈H₁₄CaO₁₀

Molecular Weight: 310.27

EINECS No.: Not Assigned

EC Code: Not Available

● Product Description

Calcium L-Threonate is a highly bioavailable organic calcium salt produced from L-threonic acid, a metabolite of vitamin C. It is widely used in dietary supplements, functional foods, and nutraceutical formulations due to its excellent absorption characteristics and gentle digestive tolerance.

Jiangsu Khonor Chemicals Co., Limited supplies high quality Calcium L-Threonate powder suitable for health products, mineral nutrition formulations, and functional food applications worldwide.

● Product Specifications

Parameter	Specification
Appearance	White to off-white powder
Assay	≥ 98.0%
Calcium Content	12% – 14%
Loss on Drying	≤3.0%
pH (1% Solution)	5.8 – 7.0
Heavy metal	≤20ppm
Lead	≤3ppm
Cadmium	≤1ppm
Mercury	≤0.1ppm

Arsenic	≤1ppm
Total Plate Count	≤1000cfu/g
Total Yeast & Mold	≤100cfu/g
Staphylococcus aureus	Negative
Salmonella	Negative
Escherichia Coli	Negative

● Production Method

Calcium L-Threonate is typically produced through the controlled neutralization reaction between purified L-threonic acid and high-purity calcium sources, followed by concentration, crystallization, drying, and milling processes..

● Functional Properties

- High calcium bioavailability
- Good water solubility
- Gentle on digestive system
- Suitable for mineral nutrition formulations
- Excellent stability in supplement applications

● Working Mechanism

Calcium L-Threonate provides calcium in an organic chelated form associated with L-threonic acid. The L-threonate structure may help improve calcium transport and absorption efficiency within the body compared with certain conventional inorganic calcium salts.

After ingestion:

- Calcium ions support bone and tooth health
- Contributes to muscle contraction and nerve transmission
- Supports enzyme activity and cellular functions
- L-threonate may assist mineral utilization efficiency

● Applications

Dietary Supplements

Widely used in:

- Calcium capsules
- Bone health tablets
- Mineral premixes
- Healthy aging supplements

Functional Foods

Suitable for:

- Nutritional beverages
- Functional powders
- Fortified foods
- Nutrition sachets

Sports Nutrition

Can be used in products supporting:

- Muscle function
- Electrolyte balance
- Recovery nutrition

Senior Nutrition

Frequently included in:

- Bone support products
- Healthy aging formulations
- Daily mineral supplements

● Advantages Compared with Traditional Calcium Sources

Calcium Source	Main Advantage
Calcium L-Threonate	High bioavailability and good tolerance
Calcium Carbonate	High calcium content
Calcium Citrate	Good absorption
Calcium Lactate	Mild taste and good solubility
Calcium Gluconate	Gentle digestive profile

- **Packaging**

- 25 kg Fiber Drum
- 25 kg Kraft Paper Bag
- OEM Packaging Available

- **Storage Conditions**

Store in a cool, dry, and well-ventilated place. Keep away from moisture, heat, and direct sunlight.

- **Shelf Life**

24 Months under recommended storage conditions.

- **Quality Standards**

The product can comply with:

- Enterprise Standards
- Food Grade Standards
- GMP Manufacturing Requirements
- Halal Certification
- Kosher Certification