



TECHNICAL DATA SHEET

Product Name: Magnesium L-Threonate

Chemical Name: Magnesium Bis(L-threonate)

CAS No.: 778571-57-6

Molecular Formula: $C_8H_{14}MgO_{10}$

Molecular Weight: 294.49

EINECS No.: Not Assigned

EC Code: Not Available

● Product Description

Magnesium L-Threonate is a highly bioavailable magnesium compound synthesized from magnesium and L-threonic acid, a metabolite of Vitamin C. It is widely used in dietary supplements, functional foods, nutraceuticals, and cognitive health formulations due to its excellent absorption and ability to effectively elevate magnesium levels in the body.

Jiangsu Khonor Chemicals Co., Limited supplies high-quality Magnesium L-Threonate suitable for nutraceutical and food supplement applications, with stable quality and customizable specifications.

● Product Specifications

Parameter	Specification
Appearance	White to off-white powder
Assay	≥ 98.0%
Magnesium Content	7.2% – 8.3%
Loss on Drying	≤ 5.0%
pH (1% Solution)	5.8 – 7.5
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

Magnesium L-Threonate is produced through the reaction of magnesium compounds with L-threonic acid under controlled conditions, followed by purification, concentration, crystallization, and drying processes to ensure high purity and stability.

● Main Raw Materials

- L-Threonic Acid
- Magnesium Oxide or Magnesium Carbonate
- Purified Water

● Functional Mechanism

Magnesium L-Threonate is known for its superior bioavailability compared with many conventional magnesium salts. It is designed to effectively transport magnesium ions across biological membranes, supporting:

- Cognitive function
- Memory and learning ability
- Nervous system health
- Muscle relaxation
- Sleep quality
- Overall magnesium supplementation

Its unique molecular structure allows efficient absorption and utilization in the body.

● Applications

Dietary Supplements

Widely used in capsules, tablets, sachets, and powdered nutritional products.

Cognitive Health Products

Commonly included in brain health and memory-support formulations.

Functional Foods & Beverages

Used in fortified foods and nutritional drinks.

Sports Nutrition

Applied in muscle recovery and relaxation supplements.

Sleep Support Formulations

Often combined with melatonin, L-theanine, or herbal extracts.

● **Packaging**

Packaging Type	Weight
Fiber Drum	25 kg/drum

● **Storage & Shelf Life**

- Store in a cool, dry, and well-ventilated place.
- Keep container tightly closed and protected from moisture and direct sunlight.

Shelf Life: 24 months under recommended storage conditions.