



Technical Data Sheet

1. Product Identification

- Trade Name: EDTA Ca
- Manufacturer: SHANXI IHUMATE BIOTECH CO.,LTD
- Address: No. 64 Nan Gou, Chen Village, Bailong Town, Huozhou, Linfen City, Shanxi Province,China.
- Tel. No.: +86- 18874230390

2. Typical Composition & Specifications

<u>Component</u>	<u>Specification</u>
EDTA-Ca (total Ca) active content	9.6% (min)
Calcium form	EDTA chelated Ca ²⁺ (100% water-soluble stable chelate)
pH (1% aqueous solution, 25°C)	6.96 (weak acid, crop & soil safe)
Water solubility	100% (25°C), clear transparent solution, no precipitation/insoluble residue
Particle size	200 mesh (uniform crystal, fast dissolution)
Moisture content	≤3.0% (max)
Bulk density	0.85–1.05 g/cm ³
Insoluble matter in water	≤0.1% (max)

3. Physical & Chemical Properties

- Appearance: White to off-white homogeneous crystalline powder, no visible impurities, free-flowing without agglomeration
- Odor: Slight characteristic chelated calcium odor, no pungent/irritating smell
- Hygroscopicity: Slightly hygroscopic (sealed storage to avoid moisture absorption)
- Corrosiveness: Non-corrosive to agricultural sprayers, drip irrigation equipment, plastic/glass packaging and soil
- Thermal Stability: Stable at 5–40°C, no decomposition or nutrient loss in normal storage
- Ion Stability: Ca²⁺ remains firmly chelated in neutral/weak acidic aqueous environment, no reaction with other nutrient ions (excluding high-concentration phosphate)
- Compatibility: Excellent with most neutral/weak acidic NPK fertilizers, amino acid/humic acid fertilizers, chelated trace elements (Fe/Zn/Mn/Cu/B/Mg) and pesticides; avoid mixing with strong alkaline products and high-concentration phosphate fertilizers.

4. Product Core Advantages

- High-purity water-soluble calcium: ≥10.0% chelated Ca²⁺, 100% water-soluble, can be directly absorbed by crop roots and leaves, utilization rate is 5–8 times that of ordinary inorganic calcium fertilizers (e.g., calcium carbonate, calcium sulfate), no soil fixation or leaching loss.
- Targeted prevention of physiological diseases: Quickly supplements calcium to crop fruits and young shoots (parts with poor calcium mobility), effectively prevents blossom-end rot (tomato/cucumber), bitter pit (apple/pear), tip burn (Chinese cabbage/lettuce) and other calcium deficiency physiological diseases.

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- Improves fruit quality and storage: Promotes crop cell wall synthesis, increases fruit firmness and gloss, reduces fruit cracking and soft rot, prolongs shelf life and storage tolerance by 30%+ for fresh fruits and vegetables.
- Crop-safe and wide application: Weak acid formula, no phytotoxicity to crop leaves, young buds, flowers and young fruits; applicable to all growth stages, especially the key calcium demand stages (fruit swelling, bulb formation, young shoot growth).
- Stable efficacy in complex soil: EDTA chelation structure avoids calcium fixation by soil colloids and carbonate ions, effective in sandy soil, acidic soil and calcium-leaching soil where inorganic calcium is invalid.
- Synergistic nutrient absorption: Promotes crop absorption of nitrogen, phosphorus and potassium, improves overall fertilizer utilization rate, and enhances crop resistance to drought, high temperature and diseases.

5. Application & Usage Methods

- **Key Applicable Growth Stages**
- Seedling stage, young shoot growth stage, flowering stage, fruit setting stage, fruit swelling stage, bulb formation stage (best effect when applied at the early stage of calcium demand; continuous application during fruit swelling for fruit crops to prevent physiological diseases).

- **Dilution Ratio & Recommended Dosage**

<u>Application Method</u>	<u>Dilution Ratio</u>	<u>Dosage</u>	<u>Application Frequency</u>	<u>Key Notes</u>
Foliar Spray	1:800–1:1500	300–500 g	2–3 times, interval 7–10 days	Focus on spraying fruits and young leaves; spray in the morning/evening
Drip Irrigation / Fertigation	1:600–1:1000	800–1500 g	2–3 times per growth cycle	Dissolve completely and filter before use; apply with watering
Soil Application	Mix with fine soil/organic fertilizer (1:10)	2–4 kg	1 time per growth cycle	Apply near crop root zone (10–20 cm from stem); irrigate immediately after application
Seed Soaking	1:2000–1:3000	—	Soak 4–6 hours	Dry seeds in the shade before sowing; improve seed germination and seedling calcium nutrition
Root Dipping (transplanting)	1:2000–1:3000	—	Dip 10–15 minutes	Enhance root development and seedling survival rate

6. Packaging, Storage & Shelf Life

- Packaging Specification: 1 kg / 5 kg aluminum foil sealed bag (moisture-proof/anti-oxidation), 25 kg woven bag with PE inner liner (double anti-leakage, anti-hygroscopic); customizable small packaging for retail market.
- Storage Requirements: Store in a cool, dry, well-ventilated warehouse; avoid direct sunlight, high temperature (>40°C), moisture and heavy pressure; keep away from strong alkaline chemicals, food, seeds and feed; store in a sealed state at all times.

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- Shelf Life: 24 months under normal storage conditions (unopened); slight moisture absorption and caking can be kneaded and dissolved for use, no effect on fertilizer efficacy.
- Transport Requirements: Non-hazardous agricultural fertilizer, comply with national solid cargo transport regulations; avoid violent collision, rain and moisture during transport; no special temperature requirements for short-distance transport.

7. Safety & Handling

- The product is non-toxic, non-flammable, non-explosive and non-corrosive, safe for agricultural operators, crops, livestock and the ecological environment under recommended use.
- Avoid inhalation of powder dust during bulk handling; it is recommended to wear a dust mask and gloves; if dust enters the eyes or adheres to the skin, rinse the affected area with plenty of clean water for 3–5 minutes immediately.
- Keep out of the reach of children and pets; do not eat or drink the product; no toxic side effects if accidentally ingested in a small amount (drink plenty of water for dilution).
- For agricultural use only, no industrial, domestic or other non-agricultural use; the unused diluted solution can be discharged into farmland without causing environmental pollution.
- Dispose of empty packaging properly: rinse the empty bag with clean water (the washing water can be used for crop fertilization), then recycle or treat in accordance with local environmental protection regulations; do not discard empty packaging at will.

8. Quality Control & Compliance

- Meet the national/industrial standards for agricultural chelated trace element fertilizers (GB/T 17420-2021) and calcium-specific water-soluble fertilizers.
- Heavy metal content complies with strict green food and organic planting production standards (Pb ≤50mg/kg, Cd ≤10mg/kg, As ≤20mg/kg, Hg ≤2mg/kg, Cr ≤100mg/kg).
- No added plant hormones, no chemical preservatives, no heavy metal impurities, no chlorine, no sulfur, no sodium; suitable for chlorine-sensitive crops (tobacco, grapes, potatoes, citrus).
- EDTA raw material is agricultural grade/food grade, calcium ions are high-purity Ca²⁺ from food-grade calcium salts, no solvent residue and chelation rate ≥98%.
- Passed water solubility test, crop safety spray test, compatibility test and multi-crop field effect test; product quality is certified by national recognized agricultural product testing institutions.
- EDTA-Ca content is tested by atomic absorption spectrometry, with accurate and reliable detection data; test reports are available for customer inquiry and verification.

9. Disclaimer

This TDS is for reference only. Actual effect depends on soil type, crop type, climate, and application method. Field testing is recommended before large-scale use.

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