



## Technical Data Sheet

### 1. Product Identification

- Trade Name: EDTA Zn
- 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

#### Component

EDTA-Zn (total Zn) active content

Zinc form

pH (1% aqueous solution)

Water solubility

Particle size

Moisture content

Bulk density

#### Specification

14.7%

EDTA chelated Zn<sup>2+</sup> (100% water-soluble stable chelate)

6.64 (weak acid, crop-safe)

100% (25°C), clear solution, no precipitation/insoluble residue

200 mesh (uniform crystal, fast dissolution)

≤3.0%

0.8–1.0 g/cm<sup>3</sup>

### 3. Physical & Chemical Properties

- Appearance: White free-flowing crystalline powder, no visible impurities, no agglomeration
- Odor: Slight characteristic chelated zinc odor, no pungent/irritating smell
- Hygroscopicity: Slightly hygroscopic (sealed storage without caking)
- 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

### 4. Product Core Advantages

- High-purity chelated zinc: Standard active content (powder ≥15% / liquid ≥70g/L), 100% water-soluble, zinc ions can be directly absorbed by crop roots and leaves, utilization rate is 6–10 times that of ordinary inorganic zinc fertilizers (e.g., zinc sulfate)
- Dual-form design: Powder type is suitable for large-area soil application and mechanical fertilization; liquid type is convenient for foliar spray and drip irrigation, meeting different planting mode and fertilization needs
- Stable efficacy: EDTA chelation structure is not easy to dissociate in neutral/weak acidic soil, no zinc precipitation, long-lasting fertilizer effect, one application can quickly alleviate zinc deficiency symptoms (small leaves, leaf chlorosis, poor tillering, low fruit setting rate) in 3–5 days
- Crop-safe formula: Weak acid pH, no phytotoxicity to crop leaves, young buds, flowers and young fruits, even overdosage at recommended concentration will not cause leaf burn or root damage, suitable for all growth stages
- Synergistic growth promotion: Promotes crop enzyme synthesis and photosynthetic product translocation, enhances flower bud differentiation and pollen viability, improves fruit setting rate and crop yield, while increasing fruit sugar content and coloration,

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upgrading commercial quality

- Wide adaptability: Applicable to various zinc-demanding crops and neutral/weak acidic soil, can be mixed with most agricultural inputs, simple operation, saving labor and fertilization cost

## 5. Application & Usage Methods

- **Key Applicable Growth Stages**
- Seedling stage, tillering/branching stage, leaf expansion stage, flower bud differentiation stage, initial flowering stage (best effect when applied at the early stage of zinc deficiency; regular application in zinc-deficient soil at seedling stage for prevention)

- **Dilution Ratio & Recommended Dosage**

<u>Application Method</u>	<u>Dilution Ratio / Application Mode</u>	<u>Recommended Dosage per Hectare</u>	<u>Application Frequency</u>
Foliar Spray	1:1000–1:2000 dilution	200–400 g	2–3 times, interval 7–10 days
Drip Irrigation / Fertigation	1:800–1:1500 dilution	500–800 g	1–2 times per growth cycle
Soil Application	Mix with fine soil/organic fertilizer	1–2 kg	1 time per growth cycle
Seed Soaking	1:2000–1:3000 dilution	Soak 4–6 hours	1 time (dry in the shade before sowing)

## 6. Packaging, Storage & Shelf Life

- Packaging Specification: 1kg/5kg aluminum foil sealed bag (moisture-proof/anti-oxidation), 25kg 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) and moisture; seal the package immediately after use to prevent moisture absorption and caking; keep away from strong alkaline chemicals.
- 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.

## 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.
- Avoid inhalation of powder dust (powder type) during bulk handling; it is recommended to wear a dust mask and gloves; if dust enters the eyes or liquid splashes on the skin, rinse the affected area with plenty of clean water for 3–5 minutes immediately; no special medical treatment is needed for general contact.
- Keep out of the reach of children and pets; do not eat or drink the product or its diluted solution; 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/bottle/drum 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 in farmland, water bodies or public areas.

## 8. Quality Control & Compliance

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SHANXI IHUMATE BIOTECH CO.,LTD  
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- Meet the national/industrial standards for agricultural chelated trace element fertilizers (GB/T 17420-2021) and zinc-specific water-soluble fertilizers.
- Heavy metal content complies with strict green food production standards:
- Powder type: Pb  $\leq$ 50mg/kg, Cd  $\leq$ 10mg/kg, As  $\leq$ 20mg/kg, Hg  $\leq$ 2mg/kg, Cr  $\leq$ 100mg/kg;
- Liquid type: Pb  $\leq$ 3mg/L, Cd  $\leq$ 0.3mg/L, As  $\leq$ 1mg/L, Hg  $\leq$ 0.05mg/L, Cr  $\leq$ 5mg/L.
- 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, zinc ions are high-purity Zn<sup>2+</sup>, chelation rate  $\geq$ 98%; all raw materials meet agricultural production safety standards.
- 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, and test reports are available for customer inquiry and verification.
- EDTA-Zn content is tested by atomic absorption spectrometry, with accurate and reliable detection data, and product quality is traceable.

### 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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