



## Technical Data Sheet

### 1. Product Identification

- Trade Name: EDTA POWER
- 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 Chelated Copper (Cu)	1.5%
EDTA Chelated Iron (Fe)	4.0%
EDTA Chelated Magnesium (Mg)	5.4%
EDTA Chelated Manganese (Mn)	4.0%
EDTA Chelated Zinc (Zn)	1.5%
Boron (B, water-soluble)	0.5%
Molybdenum (Mo, water-soluble)	0.1%
Cobalt (Co, EDTA chelated)	0.05%
pH (1% aqueous solution, 25°C)	5.0–7.0 (near neutral)
Water solubility (25°C)	100%, clear solution, no precipitation/insoluble residue
Particle size	200 mesh (uniform crystal, fast dissolution)
Moisture content	≤3.0%
Bulk density	0.8–1.1 g/cm <sup>3</sup>
Insoluble matter in water	≤0.1%

### 3. Physical & Chemical Properties

- Appearance: Light green homogeneous crystalline powder, no visible impurities, free-flowing without agglomeration
- Odor: Slight characteristic chelated trace element 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 Compatibility: Chelated trace elements do not react with each other in aqueous solution; no invalid precipitation with N/P/K macronutrients (in pH 5.0–7.0 range)
- Environmental Stability: Effective in neutral/weak acidic soil, ions not easy to be fixed by soil colloids or oxidized, high utilization rate of all elements

### 4. Product Core Advantages

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- Comprehensive Multi-Element Formula
- One product supplements 8 essential trace elements (Cu/Fe/Mg/Mn/Zn/B/Mo/Co) required by crops, solves the problem of single fertilization for multiple deficiencies, and realizes one-time supplementation, full nutrition balance.
- High-Purity EDTA Chelation
- Cu/Fe/Mg/Mn/Zn/Co are EDTA chelated (chelation rate  $\geq 98\%$ ), 100% water-soluble, directly absorbable by crop roots and leaves; utilization rate is 5–10 times that of inorganic trace element fertilizers, no soil fixation or leaching loss.
- Near-Neutral pH Adaptability
- pH 5.0–7.0 perfectly matches neutral/weak acidic soil and crop growth environment, no soil acid-base imbalance, no phytotoxicity to crop leaves/young buds/fruits, suitable for all growth stages.

## 5. Application & Usage Methods

- **Key Applicable Growth Stages**
- Seedling stage, leaf expansion stage, tillering/branching stage, flower bud differentiation stage, fruit setting stage and fruit expansion stage; best effect when applied at the early stage of nutrient demand; regular application in multi-element deficiency soil for prevention.
- **Recommended Dosage & Dilution Ratio**

<u>Application Method</u>	<u>Dilution Ratio / Application Mode</u>	<u>Dosage</u>	<u>Application Frequency</u>	<u>Key Operation Notes</u>
Foliar Spray	1:1000–1:2000 (fully dissolved)	300–500 g	2–3 times, interval 7–10 days	Spray both leaf surfaces (focus on back); apply in morning/evening
Drip Irrigation / Fertigation	1:800–1:1500 (fully dissolved)	800–1200 g	2–3 times per growth cycle	Filter with 80-mesh cloth 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 root zone (10–20 cm from stem); irrigate immediately after application
Seed Soaking	1:2000–1:3000 (aqueous solution)	—	Soak 4–6 hours	Dry seeds in the shade before sowing; improve germination rate and seedling vigor
Root Dipping (Transplanting)	1:2000–1:3000 (aqueous solution)	—	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 ( $>40^{\circ}\text{C}$ ), 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 do not affect fertilizer efficacy after full dissolution.
- 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 (no special medical treatment needed).
- 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 multi-element water-soluble fertilizers.
- Heavy metal content complies with strict green food and organic planting production standards (Pb  $\leq$ 50mg/kg, Cd  $\leq$ 10mg/kg, As  $\leq$ 20mg/kg, Hg  $\leq$ 2mg/kg, Cr  $\leq$ 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; B/Mo are high-purity water-soluble salts; all raw materials have no solvent residue and 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.
- Element content is tested by atomic absorption spectrometry and inductively coupled plasma emission spectrometry (ICP); detection data is accurate and reliable; 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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