Technical Data Sheet (TDS)

1. Product Overview

- Product Name: Trichloroisocyanuric Acid (TCCA) - English Name: Trichloroisocyanuric Acid - CAS Number: 87-90-1 - Formula: $C_3Cl_3N_3O_3$ - Molecular Weight: 232.41 g/mol - Product Characteristics: High-efficiency, stable chlorinated oxidizing disinfectant. Features ultra-high available chlorine content, slow-release performance, and long-lasting bactericidal, virucidal, and fungicidal effects. Stable under dry storage conditions, low hygroscopicity, and easy to transport. Suitable for water treatment, disinfection, and bleaching across industrial and municipal fields. Corrosive and strong oxidizing; requires proper handling.

2. Technical Specifications (Complies with GB/T 22388-2008)

Item	Specification
Appearance	White crystalline powder or granular solid, slight chlorine odor
Available Chlorine Content	90.0-95.0%
Moisture Content	≤ 0.5%
pH Value (1% Aqueous Solution, 25℃)	2.0-4.0
Insoluble Matter in Water	≤ 0.1%
Heavy Metals (Pb)	≤ 0.0005%
Arsenic (As)	≤ 0.0001%
Mercury (Hg)	≤ 0.000005%
Particle Size	80-200 Mesh (passing rate ≥ 95%)
Solubility (20℃, water)	≥ 1.0 g/100 mL
Stability (25℃, 24 months)	≥ 90% Available Chlorine Retention

3. Product Advantages

1. High Chlorine Content: Available chlorine up to 90-95%, 1.5 times that of sodium dichloroisocyanurate (SDIC), low dosage and cost-saving. 2. Super Stability: Low moisture absorption, retains chlorine content longer than sodium hypochlorite; easy to store and transport. 3. Broad-Spectrum Disinfection: Kills 99.9% of bacteria, viruses, fungi, and algae (including drug-resistant strains) quickly. 4. Long-Lasting Effect: Slow chlorine release ensures sustained disinfection, reducing application frequency. 5. Versatile Adaptability: Effective in pH 2.0-8.0 and temperature 10-45℃; suitable for various water systems and surfaces.

4. Application Fields

- Water Treatment: Municipal drinking water disinfection; sewage and wastewater treatment; swimming pool, spa, and aquaculture water sterilization. - Surface Disinfection: Medical facilities, food processing plants, public areas, and household surfaces; equipment and tool sterilization. - Bleaching: Textile, paper, and pulp bleaching; stain removal from fabrics and industrial materials. - Wastewater Treatment: Industrial wastewater (breeding, food processing, chemical) sterilization and deodorization. - Other Fields: Food preservation (surface disinfection); mold control in buildings; aquaculture water purification.

5. Usage Methods

- Dosage (as available chlorine): - Drinking Water Disinfection: 0.1-0.3 mg/L (dissolve and add to water). - Swimming Pool Water: 0.5-1.0 mg/L (maintain residual chlorine 0.3-0.5 mg/L). - Surface Disinfection: Dilute to 0.05-0.1% solution (500-1000 mg/L); spray or wipe, contact for 10-30 minutes. - Wastewater Treatment: 3-15 mg/L (adjust based on pollutant load). - Usage: Dissolve in water before use; stir evenly; avoid contact with acids or ammonia. - Optimal Conditions: Use at 15-35℃; pH 6.0-8.0 for best disinfection effect; avoid direct sunlight.

6. Packaging & Storage

- Packaging Specifications: 25 kg kraft paper bags with PE inner lining (industrial grade); 1 kg aluminum foil bags (commercial use); 1000 kg FIBC bulk bags (large-scale industrial use); custom packaging available upon request. - Storage Conditions: Store in cool, dry, well-ventilated warehouse (≤30℃); keep tightly closed; avoid moisture, direct sunlight, and high temperature; store separately from acids, reducing agents, combustibles, and organic materials. - Shelf Life: 24 months (unopened, specified conditions); use promptly after opening. - Transportation: UN 2468 (Class 5.1 Oxidizer); transport in sealed, corrosion-resistant containers; avoid collision, moisture, and mixing with incompatible substances.

7. Safety & Protection

- Strong oxidizer, corrosive, and toxic to aquatic organisms. - Operators must wear chemical goggles, face shield, nitrile gloves, and acid-resistant clothing. - In case of contact, rinse with plenty of water for ≥15 minutes; seek medical attention immediately. - Do not ingest; if swallowed, rinse mouth with water and consult a doctor. - Avoid mixing with acids (releases toxic chlorine gas); dispose of waste properly to protect the environment. - Keep away from children and pets; avoid storage near flammable materials.

8. Quality Assurance

- Manufactured in accordance with ISO 9001 quality management system standards. - Each batch is tested with a Certificate of Analysis (COA) to meet GB/T 22388-2008. - Provide technical support: dosage adjustment, dilution method optimization, and safety operation guidance.