NEWAY SINOPHC TECH. LIMITED
ADD:RM. 204, BUILDING 3, NO. 188, AONA RD., CHINA (SHANGHAI) PILOT FREE TRADE ZONE.
Email:marketing01@newayphc.com； Phone:+86-021-50350029 https://www.newayphc.com

Technical Data Sheet (TDS)

1. Product Overview

- Product Name: 亚硫酸钠 - English Name: Sodium Sulfite - CAS Number: 7757-83-7 - Formula: Na_2SO_3 - Molecular Weight: 126.04 g/mol - Product Characteristics: High-purity inorganic sulfite with excellent reduction, dechlorination and antioxidant performance; good water solubility (≥26 g/100 mL at 25℃); stable under dry and sealed conditions, easily oxidized in air; non-flammable, low toxicity; alkaline aqueous solution (pH 8.5-10.5); compatible with most water treatment agents and textile auxiliaries; suitable for water treatment, food, textile, photography and other industrial fields.

2. Technical Specifications (Complies with GB/T 9853-2018)

Item	Specification
Appearance	White crystalline powder, no mechanical
Purity (by Titration)	≥ 97.0%
Decomposition Temperature	≥ 500℃
Water Insoluble Matter	≤ 0.05%
Chloride (Cl^-) Content	≤ 0.01%
Heavy Metals (Pb) Content	≤ 0.0005%
pH Value (25℃, 1% Aqueous	8.5-10.5
Solubility in Water (25℃)	≥ 26 g/100 mL
Dechlorination Rate (25℃, 10 mg/L	≥ 99.0%
Operating pH Range	6.0-12.0

3. Product Advantages

1. Excellent Reduction & Dechlorination Performance: Rapidly reacts with free chlorine, combined chlorine and oxidizing substances in water (reaction rate constant ≥ 10^7 L/(mol·s)); dechlorination rate ≥ 99.0% at standard dosage; protects water treatment equipment and pipelines from corrosion. 2. Strong Antioxidant Capacity: Effectively inhibits oxidation of materials (food, textiles, pulp); prolongs product shelf life and service life; no residual toxic substances after reaction. 3. Good Water Solubility: Dissolves quickly in water (≥26 g/100 mL at 25℃) without residue; convenient for on-site dosing and preparation of aqueous solutions; suitable for various water-based systems. 4. Wide pH Adaptation Range: Effective in acidic, neutral and alkaline environments (pH 6.0-12.0); stable performance in complex water quality, no need for additional pH adjustment in most scenarios. 5. Good Compatibility: Compatible with flocculants, coagulants, scale inhibitors and other water treatment agents; no adverse reactions when used in combination; enhances overall treatment effect. 6. Cost-Effective & Environmentally Friendly: High purity, low dosage, cost-effective; moderately biodegradable, no persistent environmental pollution; compliant with international environmental and food safety standards.

4. Application Fields

- Water Treatment Industry: Dechlorinating agent for drinking water, swimming pool water and industrial cooling water; oxygen scavenger for boiler feed water (prevents corrosion); reducing agent for heavy metal wastewater treatment (reduces hexavalent chromium to trivalent chromium). - Food Industry: Food preservative and antioxidant (approved by GB 2760); prevents oxidation and discoloration of fruits, vegetables, seafood and beverages; maintains food flavor and nutrition; used in wine, fruit juice and meat products. - Textile Industry: Bleaching and dyeing

auxiliary; removes residual chlorine after textile bleaching (prevents fiber damage and color fading); reducing agent for reactive dyeing; improves dyeing uniformity and color fastness. - Pulp & Paper Industry: Bleaching agent for pulp (reduces lignin content); antioxidant for paper (prevents yellowing); improves paper whiteness and durability. - Other Fields: Photographic developer (reduces silver halide to metallic silver); analytical reagent for the determination of oxidizing substances; electroplating additive (reduces metal ions in plating solution); rubber industry (antioxidant for rubber products).

5. Usage Methods

- Dosage (as pure product): - Water Treatment (Dechlorination): 1.0-1.5 mg/L per 1 mg/L residual chlorine; adjust dosage based on residual chlorine content and water quality. - Food Industry (Preservative): 0.05-0.2 g/kg (depending on food type, comply with GB 2760); use as aqueous solution (5-10% concentration). - Textile Industry (Dechlorination): 0.3-0.8 g/L aqueous solution; soak textiles for 5-10 minutes after bleaching. - Boiler Feed Water (Oxygen Scavenger): 5-10 mg/L; add to feed water system continuously. - Usage: Dissolve the product in water (dissolution ratio 1:10) to prepare a stock solution, then dilute to the required concentration and add to the system; stir evenly after dosing to ensure full reaction. - Optimal Conditions: Use at temperature 10-50℃ and pH 6.0-12.0; avoid use in strong acidic environment (prevents sulfur dioxide release); reaction time ≥ 3 minutes for dechlorination; use promptly after preparing the solution (easily oxidized in air).

6. Packaging & Storage

- Packaging Specifications: 25 kg paper-plastic composite bags (with inner PE liner, moisture-proof and anti-oxidation); 50 kg plastic drums (sealed); 200 kg iron drums (lined with PE bag); custom packaging available upon request. - Storage Conditions: Store in a cool, dry, well-ventilated warehouse (temperature 5-30℃, relative humidity ≤60%); keep container tightly closed to prevent moisture absorption and oxidation (easily oxidized to sodium sulfate in air); avoid direct sunlight and high temperature (>40℃); store separately from strong oxidants, concentrated acids and food-grade materials; stack bags/drums stably (no more than 3 layers) to prevent tipping; keep away from children and pets. - Shelf Life: 24 months (unopened, specified conditions); use promptly after opening, seal tightly after each use; do not use if caking, discoloration (yellowing) or moisture absorption occurs.

7. Safety & Protection

- The product is a non-flammable solid, mildly irritating to skin, severely irritating to eyes, toxic to aquatic organisms; reacts with concentrated acids to release toxic sulfur dioxide gas; easily hygroscopic and oxidized in air. - Operators must wear personal protective equipment: P2 dust mask, nitrile/neoprene gloves, safety goggles and protective clothing; avoid skin/eye contact and inhalation of dust. - Operate in well-ventilated area; install emergency eyewash stations and safety showers nearby; in case of leakage, follow accidental release measures to avoid environmental contamination. - In case of skin contact: Rinse with plenty of running water for at least 15 minutes, wash with mild soap; seek medical help if irritation persists. - In case of eye contact: Rinse with clean water/normal saline for at least 20 minutes, do not rub eyes; seek emergency medical help immediately.

8. Quality Assurance

- Manufactured in accordance with ISO 9001 quality management system standards; strictly controls raw materials (sodium hydroxide, sulfur dioxide), production processes (neutralization, crystallization, purification, drying) and finished product testing. - Each batch of product is strictly tested with a Certificate of Analysis (COA) to meet GB/T 9853-2018 and international quality standards, ensuring product purity, performance and safety. - Provide professional technical support: customize dosage and application schemes based on user scenarios (water quality, food type, textile process); provide on-site guidance for dosing, storage and problem-solving; solve user application problems in a timely manner.