

## Technical Data Sheet (TDS)

### 1. Product Overview

- Product Name: Sodium Diethyldithiocarbamate
- English Name: Sodium Diethyldithiocarbamate
- CAS Number: 148-18-5
- Formula:  $C_5 H_{10} NNaS_2$
- Molecular Weight: 171.26 g/mol
- Product Characteristics: High-purity crystalline powder, strong chelating ability for heavy metals (Cu, Pb, Cd, Hg). Soluble in water, stable under normal storage. Used as efficient chelating agent and analytical reagent.

### 2. Technical Specifications

Item	Specification
Appearance	White to pale yellow crystalline powder
Purity ( $C_5 H_{10} NNaS_2$ )	$\geq 98.0\%$
Moisture Content	$\leq 1.0\%$
pH Value (5% solution, 25°C)	8.5-10.5
Heavy Metals (Pb)	$\leq 0.001\%$
Heavy Metals (As)	$\leq 0.0005\%$
Iron (Fe)	$\leq 0.005\%$
Insoluble Matter in Water	$\leq 0.1\%$
Solubility (20°C)	$\geq 95$ g/100 mL (water)

### 3. Product Advantages

- High purity and strong chelating activity for heavy metals.
- Fast reaction rate with heavy metal ions.
- Soluble in water for easy application.
- Stable under proper storage conditions.
- Versatile in industrial and analytical applications.

### 4. Application Fields

- Water Treatment: Heavy metal removal from industrial wastewater (electroplating, mining, chemical industry).
- Analytical Chemistry: Reagent for heavy metal ion detection (colorimetric analysis).
- Rubber Industry: Vulcanization accelerator for natural and synthetic rubber.
- Pesticide Industry: Intermediate for fungicides and insecticides.
- Other: Metal extraction, chemical synthesis catalyst.

### 5. Usage Methods

- Water Treatment: Dosage 50-500 ppm; dilute with water (1:50) and add to wastewater; stir for 30 minutes.

- Analytical Reagent: Prepare 1-5% aqueous solution; use as chelating agent for heavy metal detection.
- Rubber Vulcanization: Add 0.5-2% (mass ratio) to rubber compound.
- Optimal Conditions: Apply at 15-40°C; avoid strong acids.

### 6. Packaging & Storage

- Packaging: 1 kg/bag (plastic-lined kraft bag), 25 kg/drum (HDPE), 100 kg/drum (HDPE).
- Storage: Cool, dry, well-ventilated warehouse ( $\leq 30^{\circ}\text{C}$ ); keep sealed.
- Shelf Life: 24 months (unopened).
- Transportation: Handle as UN3077; avoid moisture, collision, direct sunlight.

### 7. Safety & Protection

- Wear protective gloves, safety goggles, and dust mask during handling.
- Avoid skin/eye contact and dust inhalation; rinse immediately if contact occurs.
- Do not ingest; seek medical advice if accidentally swallowed.
- Prevent release to waterways.

### 8. Quality Assurance

- Manufactured under ISO 9001 quality management system.
- Each batch accompanied by COA.
- Provide technical support for application and dosage adjustment.