

Technical Data Sheet (TDS)

1. Product Overview

- Product Name:1,6-Hexanediamine
- English Name:1,6-Hexanediamine
- CAS Number:124-09-4
- Formula:C₆ H₁₆ N₂
- Molecular Weight:116.21 g/mol
- Product Characteristics:High-purity colorless crystalline solid, strong basicity, excellent reactivity. Key monomer for nylon 66, efficient epoxy curing agent. Stable under normal storage, soluble in water and common organic solvents.

2. Technical Specifications

Item	Specification
Appearance	Colorless to pale yellow crystalline solid
Purity (C ₆ H ₁₆ N ₂)	≥ 99.0%
Melting Point	40-42°C
Boiling Point	204-205°C
Water Content	≤ 0.5%
Heavy Metals (Pb)	≤ 0.001%
Iron (Fe)	≤ 0.0005%
Insoluble Matter in Ethanol	≤ 0.1%
Flash Point (Closed Cup)	81°C
Density (25°C)	0.87-0.89 g/cm ³
Solubility (20°C)	≥ 100 g/100 mL (water)

3. Product Advantages

- High purity and consistent quality for reliable synthesis.
- Strong reactivity as curing agent and monomer.
- Good solubility in water and organic solvents.
- Stable thermal performance for industrial applications.

4. Application Fields

- Polymer Industry:Monomer for nylon 66 (polyhexamethylene adipamide).
- Coatings & Adhesives:Epoxy resin curing agent; improves adhesion and hardness.
- Chemical Synthesis:Intermediate for pharmaceuticals, surfactants, corrosion inhibitors.
- Other:Textile auxiliaries, metal complexing agent.

5. Usage Methods

- Nylon Synthesis:React with adipic acid in equimolar ratio; polymerize at high temperature/pressure.
- Epoxy Curing:Add 10-20% (mass ratio) to epoxy resin; cure at 80-120°C.



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- Optimal Conditions:Apply at 20-80°C; avoid strong oxidizing agents and acids.

6. Packaging & Storage

- Packaging:5 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; away from oxidizing agents.
- Shelf Life:24 months (unopened).
- Transportation:Handle as UN2280; avoid collision, moisture, direct sunlight.

7. Safety & Protection

- Wear chemical-resistant suit, nitrile gloves, chemical splash goggles, face shield, and respirator during handling.
- Operate in well-ventilated area; avoid skin/eye contact and ingestion.
- Rinse immediately with plenty of water if contact occurs; seek medical attention.

8. Quality Assurance

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

A large, faded version of the Neway Sinophc Tech logo watermark, consisting of the stylized 'N' and the company name in Chinese and English.

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