

Technical Data Sheet (TDS)

1. Product Overview

- Product Name: Ammonium Hydroxide Solution
- English Name: Ammonium Hydroxide Solution; Aqueous Ammonia
- CAS Number:1336-21-6
- Formula:NH₄OH (Aqueous Solution)
- Molecular Weight:35.05 g/mol (Pure NH₃)
- Product Characteristics: Colorless clear liquid with pungent ammonia odor. High-purity weak base with moderate corrosivity. Volatile, non-flammable, fully soluble in water. Suitable for chemical synthesis, laboratory research, and cleaning.

2. Technical Specifications

Item	Specification
Appearance	Colorless clear liquid
NH ₃ Concentration (w/w)	28.0 ± 1.0%
Density (20°C)	0.900-0.905 g/cm ³
pH Value (25°C)	11.5-12.5
Heavy Metals (Pb)	≤ 0.5 ppm
Heavy Metals (As)	≤ 0.1 ppm
Iron (Fe)	≤ 1 ppm
Non-Volatile Residue	≤ 0.05%
Boiling Range	38-40°C (NH ₃ vaporization)
Viscosity (20°C)	1.2 mPa·s
Volatility	Volatile at room temperature

3. Product Advantages

1. High Purity: Low impurity content ensures stable performance in neutralization and synthesis.
2. Moderate Alkalinity: Ideal for pH adjustment and chemical reactions.
3. Volatile Property: Easy to remove from reaction systems.
4. Versatile Application: Suitable for multi-industry scenarios with controlled corrosivity.

4. Application Fields

- Chemical Synthesis: Precursor for ammonium salts, pharmaceuticals, and agrochemicals.
- Laboratory Research: Analytical reagent and pH adjuster.
- Cleaning Industry: Industrial cleaner for metal surfaces and glassware.
- Textile Industry: Dyeing auxiliary and fiber treatment.

5. Usage Methods

- Dosage: 10-50% concentration (dilute with water for low-corrosivity use).
- Application: Use in corrosion-resistant equipment; avoid high temperature to reduce volatility.
- Optimal Conditions: Operate in well-ventilated areas; avoid contact with acids.



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>

6. Packaging & Storage

- Packaging: 5L HDPE cans, 20L HDPE drums, 200L HDPE drums (UN-approved).
- Storage: Cool, well-ventilated warehouse ($\leq 25^{\circ}\text{C}$); sealed, away from heat/acids.
- Shelf Life: 12 months (unopened, specified conditions).
- Transportation: Classified as corrosive hazardous goods; transport per regulations.

7. Safety & Protection

- Moderately corrosive and volatile: No smoking near storage/use areas.
- Wear chemical safety goggles, nitrile rubber gloves, and organic vapor respirator.
- Avoid inhalation, skin contact, and ingestion; ensure local exhaust ventilation.

8. Quality Assurance

- Manufactured under ISO 9001 quality management system.
- Each batch comes with a COA for compliance verification.
- Provide technical support for safe application and volatility control.



纳维盈医化科技
NEWAY SINOPHC TECH