

Technical Data Sheet (TDS)

1. Product Overview

- Product Name: Methanol (Methyl Alcohol)
- English Name: Methanol; Methyl Alcohol
- CAS Number: 67-56-1
- Formula: CH₃OH
- Molecular Weight: 32.04 g/mol
- Product Characteristics: Colorless clear liquid with a faint alcoholic odor. High-purity aliphatic alcohol solvent with excellent solubility for polar and non-polar compounds. Chemically stable under normal conditions, highly flammable, and toxic.

2. Technical Specifications

Item	Specification
Appearance	Colorless clear liquid
Purity (GC)	≥ 99.5%
Water Content	≤ 0.05%
Density (20°C)	0.791-0.793 g/cm ³
Boiling Range	64.5-65.5°C
Flash Point (Closed Cup)	11°C
Viscosity (20°C)	0.54 mPa s
Non-Volatile Residue	≤ 0.005%
Heavy Metals (Pb)	≤ 0.5 ppm
Heavy Metals (As)	≤ 0.1 ppm
Acidity (as CH ₃ COOH)	≤ 0.001%

3. Product Advantages

1. High Purity: Low impurity content ensures stable performance in chemical synthesis and analysis.
2. Versatile Solvency: Dissolves most organic/inorganic compounds, ideal for multi-scenario applications.
3. Controlled Volatility: Fast evaporation rate for efficient manufacturing and cleaning.
4. Chemical Stability: Inert to most reagents under standard operating conditions.

4. Application Fields

- Chemical Synthesis: Precursor for formaldehyde, acetic acid, methyl tert-butyl ether (MTBE), and pharmaceuticals.
- Industrial Solvent: Coatings, adhesives, inks, and rubber processing.
- Laboratory Research: Analytical reagent, reaction solvent, and calibration standard.
- Energy Sector: Fuel additive, biofuel component, and fuel cell electrolyte.

5. Usage Methods

- Dosage: Adjust according to application (10-100% concentration; dilute with compatible solvents if needed).
- Application: Use in closed systems for synthesis; employ spray or immersion for cleaning (ensure ventilation).
- Optimal Conditions: Operate at 15-25°C in well-ventilated areas; strictly avoid ignition sources.

6. Packaging & Storage

- Packaging Specifications: 5L HDPE cans, 20L steel drums, 200L steel drums, 1000L IBC totes (UN-approved).
- Storage Conditions: Store in cool, dry, well-ventilated warehouses (temperature $\leq 30^{\circ}\text{C}$). Keep sealed, away from heat, sparks, and oxidizing agents.
- Shelf Life: 12 months (unopened, under specified storage conditions).
- Transportation: Classified as flammable and toxic hazardous goods; transport per relevant regulations.

7. Safety & Protection

- Highly flammable and toxic: No smoking near storage/use areas; prohibit open flames.
- Wear full PPE: Chemical safety goggles, nitrile rubber gloves, anti-static clothing, and organic vapor respirator.
- Avoid inhalation, skin contact, or ingestion; ensure local exhaust ventilation.
- In case of exposure, follow first aid measures in MSDS and seek medical attention immediately.

8. Quality Assurance

- Manufactured under ISO 9001 quality management system.
- Each batch is accompanied by a COA for compliance verification.
- Provide technical support for safe application and process optimization.