

Technical Data Sheet (TDS)

1. Product Overview

- Product Name: Ethanol (Methyl Ethanol)
- English Name: Ethanol; Ethyl Alcohol
- CAS Number:74-93-1
- Formula:C₂H₅ OH
- Molecular Weight:46.07 g/mol
- Product Characteristics: Colorless clear liquid with a characteristic alcoholic odor. High-purity aliphatic alcohol solvent with excellent solubility. Chemically stable, highly flammable, and low-toxic. Miscible with water/organic solvents, suitable for industrial, pharmaceutical, and daily use.

2. Technical Specifications

Item	Specification
Appearance	Colorless clear liquid
Purity (GC)	≥ 99.5%
Water Content	≤ 0.2%
Density (20°C)	0.789-0.791 g/cm ³
Boiling Range	78.0-78.5°C
Flash Point (Closed Cup)	13°C
Viscosity (20°C)	1.20 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%
Water Solubility	Fully miscible

3. Product Advantages

1. High Purity: Meets food/pharmaceutical standards with low impurity content.
2. Versatile Solvency: Dissolves most organic/inorganic substances.
3. Controlled Volatility: Balanced evaporation rate for multi-scenario use.
4. Low Toxicity: Safe for human contact (food/pharmaceutical grade).

4. Application Fields

- Chemical Synthesis: Precursor for ethylene oxide, ethyl acetate, and pharmaceuticals.
- Industrial Solvent: Coatings, adhesives, inks, and cosmetics formulation.
- Laboratory Research: Analytical reagent, reaction solvent, and calibration standard.
- Daily Use: Disinfectant (high-concentration), fuel additive, food-grade solvent.

5. Usage Methods

- Dosage: 10-100% concentration (dilute with water for disinfection).

- Application: Use in closed systems for synthesis; spray/wipe for disinfection.
- Optimal Conditions: Operate in well-ventilated areas; avoid ignition sources.

6. Packaging & Storage

- Packaging: 5L HDPE cans, 20L steel drums, 200L steel drums, 1000L IBC totes (UN-approved).
- Storage: Cool, dry, well-ventilated warehouse ($\leq 30^{\circ}\text{C}$); sealed, away from heat/sparks/oxidizers.
- Shelf Life: 12 months (unopened, specified conditions).
- Transportation: Classified as flammable hazardous goods; transport per regulations.

7. Safety & Protection

- Highly flammable: No smoking near storage/use areas; prohibit open flames.
- Wear chemical safety goggles, nitrile rubber gloves, and anti-static clothing.
- Avoid excessive inhalation or ingestion; ensure local exhaust ventilation.

8. Quality Assurance

- Manufactured under ISO 9001 and ISO 22000 (food-grade) standards.
- Each batch comes with a COA for compliance verification.
- Provide technical support for safe application and process optimization.