

Technical Data Sheet (TDS)

1. Product Overview

- Product Name: Dimethoxyethanol (Methyl Cellosolve)
- English Name: Dimethoxyethanol; 2,2-Dimethoxyethanol
- CAS Number: 110-71-4
- Formula: $C_4H_{10}O_3$
- Molecular Weight: 106.12 g/mol
- Product Characteristics: Colorless clear liquid with a mild ether-like odor. High-purity glycol ether solvent with excellent solubility for polar and non-polar compounds. Chemically stable under normal conditions, flammable, and moderately toxic.

2. Technical Specifications

Item	Specification
Appearance	Colorless clear liquid
Purity (GC)	$\geq 99.0\%$
Water Content	$\leq 0.1\%$
Density (20°C)	0.965-0.967 g/cm ³
Boiling Range	124.0-126.0°C
Flash Point (Closed Cup)	39°C
Viscosity (20°C)	1.7 mPa s
Non-Volatile Residue	$\leq 0.005\%$
Heavy Metals (Pb)	≤ 0.5 ppm
Heavy Metals (As)	≤ 0.1 ppm
Acidity (as CH ₃ COOH)	$\leq 0.001\%$

3. Product Advantages

1. High Purity: Low impurity content ensures stable performance in coatings and formulations.
2. Versatile Solvency: Dissolves resins, dyes, and organic/inorganic compounds, ideal for multi-industry use.
3. Low Volatility: Long-lasting effect in formulations, reducing reapplication frequency.
4. Chemical Compatibility: Compatible with most solvents and materials, low corrosion risk.

4. Application Fields

- Industrial Solvent: Coatings, inks, adhesives, and paint thinners.
- Chemical Synthesis: Precursor for pharmaceuticals, agrochemicals, and plasticizers.
- Laboratory Research: Analytical reagent, reaction solvent, and extraction agent.
- Industrial Processing: Textile dyeing auxiliary, metal cleaning, and electronics manufacturing.

5. Usage Methods

- Dosage: Adjust according to application (20-100% concentration; dilute with water or compatible solvents).

- Application: Use in closed systems for synthesis; mix with other solvents for formulation.
- Optimal Conditions: Operate at 15-30°C in well-ventilated areas; 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 hazardous goods; transport per relevant regulations.

7. Safety & Protection

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

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.