

Technical Data Sheet (TDS)

1. Product Overview

- Product Name: Isopropanol (Isopropyl Alcohol)
- English Name: Isopropanol; Isopropyl Alcohol
- CAS Number: 67-63-0
- Formula: C₃H₇ OH
- Molecular Weight: 60.10 g/mol
- Product Characteristics: Colorless clear liquid with a characteristic alcoholic odor. High-purity aliphatic alcohol solvent with excellent solubility for polar compounds. Chemically stable under normal conditions, highly flammable, and low toxicity.

2. Technical Specifications

Item	Specification
Appearance	Colorless clear liquid
Purity (GC)	≥ 99.5%
Water Content	≤ 0.2%
Density (20°C)	0.785-0.787 g/cm ³
Boiling Range	82.0-83.0°C
Flash Point (Closed Cup)	12°C
Viscosity (20°C)	2.4 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 consistent performance in precision applications.
2. Excellent Solvency: Dissolves oils, resins, and organic compounds, ideal for cleaning and formulation.
3. Fast Evaporation: Leaves no residue after use, suitable for electronic and precision part cleaning.
4. Low Toxicity: Safer than other alcohols for industrial and laboratory use.

4. Application Fields

- Industrial Cleaning: Electronic components, precision metal parts, and optical equipment cleaning.
- Chemical Synthesis: Precursor for isopropyl acetate, acetone, and pharmaceutical intermediates.
- Laboratory Research: Analytical reagent, reaction solvent, and sample preparation.
- Daily Use: Disinfectant (70-75% concentration), cosmetics solvent, and household cleaner.

5. Usage Methods

- Dosage: Adjust according to application (30-100% concentration; dilute with water for disinfection).
- Application: Spray, wipe, or immerse for cleaning/disinfection; use in closed systems for synthesis.
- Optimal Conditions: Operate at 15-30°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 hazardous goods; transport per relevant regulations.

7. Safety & Protection

- Highly flammable: No smoking near storage/use areas; prohibit open flames.
- Wear appropriate PPE: Chemical safety goggles, nitrile rubber gloves, and anti-static clothing.
- Avoid inhalation of high concentrations; 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.