

PRODUCT IDENTIFICATION



Product Name: Isobutyl Alcohol 99% Technical Grade

CAS Number: 78-83-1

Molecular Formula: C₄H₁₀O

Molecular Weight: 74.12 g/mol

Grade: Technical Grade

Purity / Concentration: 99%

Synonyms: 2-Methyl-1-propanol, Isobutanol

PRODUCT OVERVIEW

Isobutyl Alcohol 99% Technical Grade is a high-purity solvent featuring a low moisture content of 0.01% and an APHA color rating of 5. This versatile clear liquid serves as an essential component in chemical synthesis, coatings formulation, and analytical laboratory applications.

Grade Significance: Technical Grade indicates that this product is manufactured to meet industrial standards for efficiency and consistency, providing a cost-effective solution for large-scale manufacturing and laboratory processes.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay Gc	%	99	99	99.5	GC
Color (APHA)	APHA	5	—	10	APHA
Water Karl Fischer	%	0.01	0	0.1	Karl Fischer
Acidity As Acetic	ppm	10	0	50	Titration
Aldehydes As Acetaldehyde	ppm	0.015	0	50	Spectrophotometry

ND = Not Detected. Values are typical and may vary by lot.

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear, colorless liquid	Odor	Characteristic alcohol odor
Form	Liquid	Boiling Point	225 °F at 760 mmHg (NTP, 1992)
Melting / Freezing Point	-162 °F (NTP, 1992)	Flash Point	82 °F (NTP, 1992)
Solubility	Soluble in water, alcohol, and many organic solvents	Molecular Formula	C ₄ H ₁₀ O
Molecular Weight	74.12 g/mol	Vapor Pressure (20°C)	20 mmHg
Viscosity (25°C)	0.54 cP	Refractive Index (20°C)	1.396
Density (25°C)	0.803 g/mL	Decomposition Temp.	Not applicable under normal handling

APPLICATIONS

1. **Analytical Chemistry** — It acts as a reliable mobile phase component in reversed-phase HPLC, ensuring consistent separation of organic compounds.
2. **Coatings and Paints** — The excellent solvency properties of isobutanol make it an ideal thinning agent and additive for high-performance paint and coating formulations.
3. **Chemical Manufacturing** — It serves as a critical intermediate in the synthesis of esters and plasticizers, which are foundational to various industrial products.
4. **Pharmaceuticals** — This solvent is utilized in specialized extraction processes to isolate active pharmaceutical ingredients with high precision.

STORAGE & HANDLING

Due to its flash point of 82 °F, isobutyl alcohol is classified as a flammable liquid and must be stored in a cool, well-ventilated area away from ignition sources. Proper containment is essential to prevent vapor accumulation and protect against the severe eye damage and skin irritation risks associated with exposure.

- Store in a cool, well-ventilated area away from heat sources.
- Use containers made of HDPE or glass to prevent chemical reactions.
- Avoid contact with strong oxidizing agents and acids.
- Ensure proper personal protective equipment (PPE) is worn, including gloves and goggles.
- Keep away from direct sunlight to prevent degradation.

AVAILABLE PACKAGING

- 1 Quart
- 1 Gallon
- 5 Gallon
- 15 Gallon
- 55 Gallon
- 275 Gallon
- 330 Gallon

SAFETY SUMMARY (CROSS-REFERENCE TO SDS)

Signal Word: **Danger**



Hazard Statements:

- H226: Flammable liquid and vapour
- H315: Causes skin irritation
- H318: Causes serious eye damage
- H335: May cause respiratory irritation
- H336: May cause drowsiness or dizziness

Emergency Contact: CHEMTEL - 800-255-3924 (24 Hours/Day, 7 Days/Week)

For complete safety information, refer to the Safety Data Sheet (SDS) for this product.

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