

PRODUCT IDENTIFICATION



Product Name: Isobutyl Alcohol 99%
CAS Number: 78-83-1
Molecular Formula: C₄H₁₀O
Molecular Weight: 74.12 g/mol
Grade: Technical
Purity / Concentration: 99%
Synonyms: 2-Methyl-1-propanol, Isobutanol

PRODUCT OVERVIEW

Isobutyl Alcohol 99% is a high-purity technical grade solvent, also known as 2-Methyl-1-propanol, characterized by its clear, colorless appearance and low impurity profile. With a verified assay of 99.8% and minimal water content of 0.05%, this reagent is essential for industrial applications requiring consistent solvency and chemical stability.

Grade Significance: Technical grade indicates that the product is manufactured to meet rigorous industrial standards for purity and consistency, ensuring reliable performance in 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 functions as a reliable mobile phase component in reversed-phase high-performance liquid chromatography, facilitating the precise separation of complex organic compounds.
2. **Paints and Coatings** — The chemical is utilized as a high-performance solvent in paint formulations, providing excellent solvency properties that improve application consistency and finish quality.
3. **Chemical Manufacturing** — It serves as a critical intermediate for the synthesis of various esters and plasticizers, which are foundational components in plastics and industrial additives.
4. **Pharmaceuticals** — This solvent is employed in specialized extraction processes, helping manufacturers isolate active pharmaceutical ingredients with high purity requirements.

STORAGE & HANDLING

Due to its flash point of 28°C, Isobutyl Alcohol is classified as a flammable liquid and must be stored in a cool, well-ventilated area away from ignition sources. Proper containment prevents the accumulation of flammable vapors and ensures the integrity of the chemical by protecting it from moisture and contaminants.

- 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 vapor [Warning Flammable liquids]
- H315: Causes skin irritation [Warning Skin corrosion/irritation]
- H318: Causes serious eye damage [Danger Serious eye damage/eye irritation]
- H335: May cause respiratory irritation [Warning Specific target organ toxicity, single exposure; Respiratory tract irritation]
- H336: May cause drowsiness or dizziness [Warning Specific target organ toxicity, single exposure; Narcotic effects]

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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