

### PRODUCT IDENTIFICATION



**Product Name:** Isobutyl Alcohol 99% ACS Grade

**CAS Number:** 78-83-1

**Molecular Formula:** C<sub>4</sub>H<sub>10</sub>O

**Molecular Weight:** 74.12 g/mol

**Grade:** ACS Grade

**Purity / Concentration:** 99%

**Synonyms:** 2-Methyl-1-propanol, Isobutanol

### PRODUCT OVERVIEW

Alliance Chemical offers high-purity Isobutyl Alcohol 99% ACS Grade, a clear, colorless liquid engineered for precise laboratory and industrial performance. With a verified assay of 99.8% and extremely low impurity levels, such as 0.02% water content, this solvent is an essential component for demanding chemical syntheses and analytical applications.

**Grade Significance:** ACS Grade indicates that this product meets the rigorous specifications set by the American Chemical Society, ensuring the high level of purity and consistency required for critical laboratory analysis.

### CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (wt%)	%	99.8	99	—	GC
Color (APHA)	APHA	5	—	10	ASTM D1209
Specific Gravity (20°C)	g/mL	0.801	0.8	0.802	USP <841>
Residue After Ignition	%	0.0005	—	0.0010	Gravimetric
Water Content	%	0.02	—	0.1	Karl Fischer
Heavy Metals (as Pb)	ppm	0.1	—	1	ICP-OES
Iron (Fe)	ppm	0.05	—	0.5	ICP-OES
Chloride (Cl <sup>-</sup> )	ppm	0.1	—	1	Ion Chromatography
Substances Darkened By H <sub>2</sub> SO <sub>4</sub>	—	Pass	—	—	Visual
Acidity Meq Per G	meq/g	0.0002	—	0.0005	Titration
Aldehyde As Hcho	%	0.0005	—	0.0010	Spectrophotometry

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

## PHYSICAL & CHEMICAL PROPERTIES

<b>Appearance</b>	Clear, colorless liquid	<b>Odor</b>	Characteristic alcohol odor
<b>Form</b>	Liquid	<b>Boiling Point</b>	108°C (226.4°F)
<b>Melting / Freezing Point</b>	-108°C (-162.4°F)	<b>Flash Point</b>	28°C (82.4°F)
<b>Specific Gravity</b>	0.802	<b>Solubility</b>	Soluble in water, alcohol, ether, and other organic solvents
<b>Molecular Formula</b>	C <sub>4</sub> H <sub>10</sub> O	<b>Molecular Weight</b>	74.12 g/mol
<b>Vapor Pressure (20°C)</b>	20 mmHg	<b>Viscosity (25°C)</b>	0.54 cP
<b>Refractive Index (20°C)</b>	1.396	<b>Density (25°C)</b>	0.803 g/mL
<b>Decomposition Temp.</b>	Not applicable under normal storage		

## APPLICATIONS

- Analytical Chemistry** — Serves as a high-purity mobile phase component in reversed-phase high-performance liquid chromatography (HPLC) for the accurate separation of organic compounds.
- Paints and Coatings** — Utilized as a versatile solvent in the formulation of paints and coatings, providing excellent solvency properties and flow characteristics.
- Pharmaceuticals** — Functions as a critical intermediate in the synthesis of various pharmaceutical compounds and active ingredients.
- Food and Beverage** — Employed in the delicate extraction of flavors and fragrances, ensuring the final product meets strict purity standards.

## 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 heat, sparks, or open flames. Proper storage is essential to prevent the accumulation of flammable vapors and to ensure the chemical remains stable for sensitive laboratory use.

- Store in a cool, dry place away from heat sources and open flames.
- Use materials compatible with isobutyl alcohol, such as HDPE or glass containers.
- Avoid contact with strong oxidizing agents and acids.
- Ensure proper ventilation when handling to minimize inhalation exposure.
- Wear appropriate personal protective equipment (PPE) including gloves and safety goggles.

## 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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Alliance Chemical | 204 South Edmond St, Taylor, Texas 76574 | 512-365-6838 | [www.alliancechemical.com](http://www.alliancechemical.com)

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