

PRODUCT IDENTIFICATION

**Product Name:** Isopropyl Alcohol 91%- USP Grade**CAS Number:** 67-63-0**Molecular Formula:** C_3H_8O **Molecular Weight:** 60.10 g/mol**Grade:** USP Grade**Purity / Concentration:** 91%**Synonyms:** Isopropanol, 2-Propanol

PRODUCT OVERVIEW

Alliance Chemical offers high-purity Isopropyl Alcohol 91% USP Grade, a versatile solvent characterized by its exceptional clarity and stringent quality control. With trace metal impurities like aluminum and arsenic measured at or below 0.01 ppm, this product is an ideal solution for critical laboratory and analytical applications.

Grade Significance: USP Grade certification ensures that the chemical meets the rigorous quality standards set by the United States Pharmacopeia, guaranteeing consistency and purity for sensitive applications. This gives end users confidence that the material is free from significant contaminants that could compromise experimental or production outcomes.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay Gc	%	91	90.5	91.5	GC
Color (APHA)	APHA	3	—	10	APHA
Specific Gravity (20°C)	g/mL	0.8154	0.8134	0.8174	Hydrometer @ 20°C
Aluminum Al	ppm	≤ 0.01 ppm	—	—	ICP-MS
Arsenic As	ppm	≤ 0.01 ppm	—	—	ICP-MS
Chromium Cr	ppm	≤ 0.01 ppm	—	—	ICP-OES
Cobalt Co	ppm	≤ 0.01 ppm	—	—	ICP-MS
Iron (Fe)	ppm	≤ 0.01 ppm	—	—	ICP-MS
Lead Pb	ppm	≤ 0.01 ppm	—	—	ICP-MS
Nickel Ni	ppm	≤ 0.01 ppm	—	—	ICP-OES
Potassium K	ppm	≤ 0.01 ppm	—	—	ICP-OES
Sodium Na	ppm	≤ 0.01 ppm	—	—	ICP-OES
Zinc Zn	ppm	≤ 0.01 ppm	—	—	ICP-MS
Chlorides As Cl	ppm	≤ 0.09 ppm	—	—	ICP
Phosphate	ppm	≤ 0.09 ppm	—	—	Per specification
Acidity As Acetic	%	0.0010	—	0.184	Titration
Barium Ba	ppm	≤ 0.01 ppm	—	—	ICP-MS
Boron B	ppm	≤ 0.01 ppm	—	—	ICP-MS
Cadmium Cd	ppm	≤ 0.01 ppm	—	—	ICP-MS
Particle Size	µm	1	—	46	Sieve Analysis
Silicon Si	ppm	≤ 0.01 ppm	—	—	ICP-MS
Silver Ag	ppm	≤ 0.01 ppm	—	—	ICP-MS
Strontium Sr	ppm	≤ 0.01 ppm	—	—	ICP-MS
Tin Sn	ppm	≤ 0.01 ppm	—	—	ICP-MS

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	180.5 °F at 760 mmHg (NTP, 1992)
Melting / Freezing Point	-127.3 °F (NTP, 1992)	Flash Point	≈14 °C closed cup (57 °F TCC; Hydrox/ McKesson) — Class 3 PG II.
Specific Gravity	0.79	Solubility	Soluble in water, alcohol, ether, and many other organic solvents
Molecular Formula	C ₃ H ₈ O	Molecular Weight	60.10 g/mol
Vapor Pressure (20°C)	43 mmHg	Viscosity (25°C)	2.07 cP
Refractive Index (20°C)	1.377	Density (25°C)	0.786 g/mL

APPLICATIONS

1. **Analytical Chemistry** — Functions as a reliable mobile phase component in reversed-phase chromatography to facilitate the precise separation of organic compounds.
2. **Spectroscopy** — Acts as an essential baseline solvent for UV-Vis spectroscopy, valued for its low UV cutoff wavelength that ensures accurate readings.
3. **Pharmaceutical Manufacturing** — Utilized in liquid-liquid extraction processes to effectively isolate and purify pharmaceutical intermediates.
4. **Electronics** — Provides efficient, residue-free cleaning for delicate electronic components and sensitive laboratory equipment.

STORAGE & HANDLING

Due to its classification as a highly flammable liquid with a flash point of 57 °F, this product must be stored in a cool, well-ventilated area away from heat, sparks, and open flames. Proper containment is essential to prevent the accumulation of vapors, which can cause drowsiness or dizziness if inhaled in confined spaces.

- Store in a cool, well-ventilated area away from heat sources and open flames.
- Use materials compatible with isopropyl alcohol, such as HDPE or glass containers.
- Avoid contact with strong oxidizing agents and acids.
- Ensure proper personal protective equipment (PPE) is worn, including gloves and goggles.
- Keep container tightly closed when not in use to prevent evaporation.

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:

- H225: Highly flammable liquid and vapour
- H319: Causes serious eye 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.

Alliance Chemical | 204 South Edmond St, Taylor, Texas 76574 | 512-365-6838 | www.alliancechemical.com

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