

PRODUCT IDENTIFICATION



Product Name: Isopropyl Alcohol 91%- USP Grade

CAS Number: 67-63-0

Molecular Formula: C₃H₈O

Molecular Weight: 60.10 g/mol

Grade: USP Grade

Purity / Concentration: 91%

Synonyms: Isopropanol, 2-Propanol

PRODUCT OVERVIEW

Isopropyl Alcohol 91% USP Grade is a high-purity, clear solvent essential for laboratory and industrial applications requiring strict quality control. With a measured assay of 91.3% and minimal nonvolatile residue of 1 mg, this reagent provides the reliability needed for analytical and cleaning processes.

Grade Significance: USP Grade signifies that the product meets the stringent quality and purity standards established by the United States Pharmacopeia, ensuring consistency and safety for sensitive applications.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (wt%)	%	91.3	91	93	USP <621>
Color (APHA)	APHA	5	—	10	USP <631>
Specific Gravity (20°C)	g/mL	0.818	0.817	0.819	USP <841>
Nonvolatile Residue Mg	mg	1	—	2	USP <541>
Water Content	%	0.2	—	0.5	USP <921>
Heavy Metals (as Pb)	ppm	0.1	—	1	USP <231>
Chloride (Cl ⁻)	ppm	1	—	1	USP <281>
Sulfate (SO ₄ ²⁻)	ppm	1	—	2	USP <221>
Acidity	USP	Pass	—	—	USP <541>
Aldehydes	ppm	2	—	8	USP
Appearance	Visual	Pass	—	—	Visual Inspection
Identification	USP	Pass	—	—	USP <197>
Isopropyl Alcohol Related Compounds	USP	Pass	—	—	USP <467>

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	82°C (179.6°F)
Melting / Freezing Point	-89°C (-128.2°F)	Flash Point	12°C (53.6°F)
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

- Analytical Chemistry** — Functions as a critical mobile phase component in reversed-phase chromatography to facilitate the precise separation of organic compounds.
- Spectroscopy** — Serves as an ideal baseline solvent for UV-Vis spectroscopy due to its low UV cutoff wavelength, which minimizes background interference.
- Pharmaceutical Manufacturing** — Used effectively in liquid-liquid extraction processes to isolate and purify sensitive pharmaceutical intermediates.
- Electronics** — Provides a high-efficiency cleaning solution for delicate electronic components and laboratory equipment, ensuring a residue-free surface.

STORAGE & HANDLING

Due to its flash point of 12°C, this liquid is highly flammable and must be stored in a cool, well-ventilated area away from heat sources or sparks. Maintaining proper containment is essential to prevent the accumulation of vapors, which can cause drowsiness or dizziness if inhaled.

- 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.

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