

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

Alliance Chemical's Isopropyl Alcohol 91% is a USP Grade solvent, ensuring high purity and quality. This clear, colorless liquid boasts an assay of 91.3% and a specific gravity of 0.818 g/mL, making it ideal for laboratory and industrial applications. It's commonly used as a mobile phase in chromatography and for cleaning sensitive equipment.

Grade Significance: USP Grade Isopropyl Alcohol 91% meets stringent purity standards set by the United States Pharmacopeia, ensuring it is suitable for use in pharmaceutical, food, and other applications where quality and safety are paramount.

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 (180°F)
Melting / Freezing Point	-89°C (-128°F)	Flash Point	12°C (54°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

- 1. Pharmaceutical** — Used in liquid-liquid extraction to isolate and purify pharmaceutical intermediates, ensuring product quality and yield. Its high purity minimizes interference with downstream processes.
- 2. Chromatography** — Employed as a mobile phase component in reversed-phase chromatography for separating organic compounds. Its low UV cutoff wavelength makes it suitable for UV-Vis detection.
- 3. Spectroscopy** — Serves as a baseline solvent in UV-Vis spectroscopy, providing a clear background for accurate sample analysis. The low UV cutoff minimizes spectral interference.
- 4. Electronics** — Utilized for cleaning electronic components and circuit boards, removing residues without damaging sensitive materials. Its rapid evaporation prevents moisture-related issues.
- 5. Laboratory** — Used for general laboratory cleaning and disinfection of surfaces and equipment. Its solvent properties effectively remove a wide range of contaminants.
- 6. Cosmetics** — Functions as a solvent in the production of cosmetic products, ensuring the proper dissolution and mixing of ingredients. The USP grade ensures suitability for topical applications.

STORAGE & HANDLING

Isopropyl Alcohol 91% is a highly flammable liquid, so it must be stored in a tightly closed container in a cool, well-ventilated area away from heat, sparks, open flames, and other sources of ignition. Proper storage minimizes the risk of fire and maintains product quality by preventing evaporation and contamination.

- 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 vapor [Danger Flammable liquids]
- H319: Causes serious eye irritation [Warning Serious eye damage/eye 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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