

PRODUCT IDENTIFICATION



Product Name: Isopropyl Alcohol 70% USP Grade

CAS Number: 67-63-0

Molecular Formula: C₃H₈O

Molecular Weight: 60.10 g/mol

Grade: USP Grade

Purity / Concentration: 70%

Synonyms: Isopropanol, 2-Propanol

PRODUCT OVERVIEW

Isopropyl Alcohol 70% USP Grade is a high-purity solvent formulated to meet strict pharmaceutical standards, featuring a precise 70.1% assay and a specific gravity of 0.878 g/mL. This clear, colorless liquid is widely used as a reliable reagent and cleaning agent across demanding industrial and laboratory environments.

Grade Significance: USP Grade signifies that the product meets the rigorous quality standards set by the United States Pharmacopeia, ensuring it is free from harmful contaminants and suitable for sensitive applications.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (wt%)	%	70.1	68	72	USP <621>
Specific Gravity (20°C)	g/mL	0.878	0.877	0.883	USP <841>
Nonvolatile Residue Mg	mg	1	—	10	USP <202>
Water Content	%	29.5	—	32	USP <921>
Acidity	—	Passes Test	—	—	USP <202>
Appearance	—	Clear, colorless liquid	—	—	Visual
Identification	—	Passes Test	—	—	USP <197>
Identification By Gc	—	Passes Test	—	—	GC
Limit Of Diisopropyl Ether	—	Passes Test	—	—	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	0.88	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)	33 mmHg	Viscosity (25°C)	2.07 cP
Refractive Index (20°C)	1.377	Density (25°C)	0.870 g/mL

APPLICATIONS

1. **Pharmaceutical Manufacturing** — Used extensively in the extraction of active pharmaceutical ingredients due to its consistent solvent properties and high purity levels.
2. **Analytical Chemistry** — Serves as a critical mobile phase component in reversed-phase high-performance liquid chromatography for the effective separation of organic compounds.
3. **Industrial Cleaning** — Provides an effective solution for degreasing and sanitizing surfaces in precision manufacturing processes where residue-free cleaning is essential.
4. **Chemical Synthesis** — Functions as a versatile reagent in a variety of chemical reactions and analytical procedures requiring controlled USP-grade specifications.

STORAGE & HANDLING

Due to its low flash point of 12°C, this chemical is classified as a highly 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 minimizes the risk of fire or respiratory irritation in the workplace.

- Store in a cool, well-ventilated area away from heat sources.
- Use containers made of HDPE or glass to avoid chemical reactions.
- Keep away from strong oxidizers and acids to prevent hazardous reactions.
- Ensure proper PPE is worn, including gloves and goggles, during handling.
- Avoid exposure to direct sunlight to maintain product integrity.

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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