

PRODUCT IDENTIFICATION



Product Name: Isopropyl Alcohol 99.9% ACS Reagent Grade

CAS Number: 67-63-0

Molecular Formula: C₃H₈O

Molecular Weight: 60.10 g/mol

Grade: Reagent Grade

Purity / Concentration: 99.9%

Synonyms: Isopropanol, 2-Propanol

PRODUCT OVERVIEW

Alliance Chemical's Isopropyl Alcohol 99.9% ACS Reagent Grade is a high-purity solvent ideal for critical applications. This transparent, mobile liquid boasts a low water content (0.01% by Karl Fischer) and is commonly used as a mobile phase in chromatography. Its high volatility and purity make it suitable for various laboratory and industrial processes.

Grade Significance: Reagent Grade designation indicates that this Isopropyl Alcohol meets stringent purity standards set by the American Chemical Society (ACS). This ensures the reliability and accuracy of your experiments and processes by minimizing the impact of impurities.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (Permanganate)	%	99.8	99.4	100.0	Titration
Color (APHA/Hazen)	APHA	4	0	10	Spectrophotometry
Specific Gravity (20°C)	g/mL	0.8432	0.78	0.88	Hydrometer @ 25°C
Non-Volatile Residue	%	ND	0	0.0010	Residue on Ignition
Water Karl Fischer	%	0.01	0	0.05	ASTM E203 / ISO 6296
Acidity As Acetic	%	0.0010	0	0.0020	Titration per ACS/USP
Alkalinity	—	ND	—	0.0010	Per specification

Values based on 1 batch tested. ND = Not Detected.

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Transparent, mobile liquid with high volatility	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)
Solubility	Complete water miscibility, dissolves many orga...	Molecular Formula	C ₃ H ₈ O
Molecular Weight	60.10 g/mol	Vapor Pressure (20°C)	43 mmHg
Viscosity (25°C)	0.88 cP	Refractive Index (20°C)	1.377
Density (25°C)	0.786 g/mL		

APPLICATIONS

1. **Pharmaceuticals** — Used in liquid-liquid extraction processes to isolate and purify pharmaceutical intermediates. Its high purity ensures minimal contamination of the final product.
2. **Chromatography** — A common mobile phase component in reversed-phase chromatography for separating and analyzing organic compounds. The low UV cutoff wavelength makes it suitable for UV-Vis detection.
3. **Spectroscopy** — Serves as a baseline solvent in UV-Vis spectroscopy due to its low UV cutoff wavelength. Its transparency and lack of interfering chromophores ensure accurate spectral analysis.
4. **Manufacturing** — Utilized for cleaning and degreasing surfaces in manufacturing settings. It effectively removes oils, grease, and other contaminants from parts and equipment.
5. **Laboratory** — Used for general cleaning and sterilization of laboratory equipment and surfaces. Its rapid evaporation minimizes residue and reduces the risk of contamination.
6. **Electronics** — Effective for cleaning sensitive electronic components and circuit boards. Its purity and non-corrosive properties prevent damage to delicate electronics.

STORAGE & HANDLING

Isopropyl Alcohol is a highly flammable liquid, so proper storage is crucial to prevent fire hazards. Keep containers tightly closed and store them in a cool, well-ventilated area away from heat, sparks, and open flames. This minimizes the risk of ignition and ensures the safety of personnel and the integrity of the product.

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

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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