

PRODUCT IDENTIFICATION



Product Name: Isopropyl Alcohol 99.9% ACS Reagent Grade

CAS Number: 67-63-0

Molecular Formula: C_3H_8O

Molecular Weight: 60.10 g/mol

Grade: Reagent Grade

Purity / Concentration: 99.9%

Synonyms: Isopropanol, 2-Propanol

PRODUCT OVERVIEW

Isopropyl Alcohol (IPA) is a colorless, flammable liquid with a characteristic odor, commonly used as a solvent and cleaning agent in various industrial applications. With a high purity of 99.9%, this ACS Reagent Grade IPA meets stringent quality standards, making it suitable for analytical and laboratory use.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (wt%)	%	99.9	99	100.0	Gas Chromatography (GC) with Flame Ionization Detector (FID)
Color (APHA)	APHA	3	—	5	APHA/Hazen visual comparison
Residue After Evaporation	%	0.0010	—	0.0020	Gravimetric residue after ignition
Water Content	%	0.02	—	0.05	Karl Fischer Titration
Water Pct Max Alcohols Solvents	%	0.02	—	0.05	Karl Fischer Titration
Aluminum (Al)	ppm	0.1	—	0.5	ICP-OES
Arsenic (As)	ppm	0.02	—	0.1	ICP-MS
Calcium (Ca)	ppm	10	—	50	ICP-OES
Chromium (Cr)	ppm	0.02	—	0.1	ICP-OES
Cobalt (Co)	ppm	0.02	—	0.1	ICP-OES
Copper (Cu)	ppm	0.02	—	0.1	ICP-OES
Heavy Metals (as Pb)	ppm	0.05	—	0.2	ICP-MS
Iron (Fe)	ppm	0.05	—	0.2	ICP-OES
Lead (Pb)	ppm	0.02	—	0.1	ICP-OES
Magnesium (Mg)	ppm	10	—	50	ICP-OES
Manganese (Mn)	ppm	0.02	—	0.1	ICP-OES
Nickel (Ni)	ppm	0.02	—	0.1	ICP-OES
Potassium (K)	ppm	1	—	5	ICP-OES
Sodium (Na)	ppm	1	—	5	ICP-OES
Zinc (Zn)	ppm	0.1	—	0.5	ICP-OES
Ammonium (NH ₄ ⁺)	ppm	0.5	—	2	Ion Chromatography (IC)
Chloride (Cl ⁻)	ppm	2	—	5	Ion Chromatography (IC) or Silver Nitrate argentometric titration
Nitrate (NO ₃ ⁻)	ppm	1	—	5	Ion Chromatography (IC)
Phosphate (PO ₄ ³⁻)	ppm	1	—	5	Ion Chromatography (IC)
Sulfate (SO ₄ ²⁻)	ppm	1	—	5	Ion Chromatography (IC)
Substances Darkened by H ₂ SO ₄	—	Passes test	—	—	Colorimetric test with sulfuric acid darkening assessment
Substances Reducing KMnO ₄	—	Passes test	—	—	Potassium permanganate time test
Acidity (meq)	meq	0.0001	—	0.0003	Titration with standardized NaOH
Acidity Meq Max Alcohols Solvents	meq	0.0001	—	0.0003	Titration with standardized NaOH
Aldehydes	ppm	5	—	10	Gas Chromatography (GC) with appropriate derivatization or specific aldehyde assay
Aldehydes Ppm Max Alcohols Solvents	ppm	5	—	10	GC or HPLC aldehyde assay

ND = Not Detected. Values are typical and may vary by lot.

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Transparent, mobile liquid with high volatility	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	53 °F (NTP, 1992)
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. **Analytical Chemistry** — Commonly used as a mobile phase component in reversed-phase chromatography for separating organic compounds.
2. **Research Laboratory** — Serves as a baseline solvent in UV-Vis spectroscopy due to its low UV cutoff wavelength.
3. **Industrial** — Utilized for cleaning and degreasing surfaces in manufacturing and laboratory settings.
4. **Pharmaceutical Manufacturing** — Used in liquid-liquid extraction processes for isolating pharmaceutical intermediates.
5. **Chemical Synthesis** — Acts as a solvent in various chemical reactions, facilitating the dissolution of reactants.

STORAGE & HANDLING

- 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.

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

Disclaimer: The information contained herein is believed to be accurate and represents the best information currently available to us. However, Alliance Chemical makes no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.