TECHNICAL DATA SHEET

n-Propyl Alcohol ACS Grade

Revised: 02/20/2026

PRODUCT IDENTIFICATION

Product Name: n-Propyl Alcohol ACS Grade
CAS Number: 71-23-8
Molecular Formula: C_3H_8O
Molecular Weight: 60.10 g/mol
Grade: ACS Grade
Purity / Concentration: Not Available
Synonyms: 1-Propanol, Propyl Alcohol

PRODUCT OVERVIEW

n-Propyl Alcohol ACS Grade from Alliance Chemical is a high-purity solvent, boasting an assay of 99.8%. As a clear, colorless liquid with a specific gravity of 0.803 g/mL, it is primarily used as a mobile phase in HPLC and as a solvent in pharmaceutical extractions.

Grade Significance: ACS Grade signifies that this n-Propyl Alcohol meets the stringent purity standards set by the American Chemical Society. This ensures the reliability and accuracy of your experiments and processes by minimizing the presence of interfering impurities.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (wt%)	%	99.8	99.5	—	GC
Color (APHA)	APHA	5	—	10	ASTM D1209
Specific Gravity (20°C)	g/mL	0.803	0.803	0.806	USP <841>
Residue After Ignition	%	0.0005	—	0.0010	Gravimetric
Water Content	%	0.02	—	0.1	Karl Fischer
Iron (Fe)	ppm	0.05	—	0.2	ICP-MS
Chloride (Cl^-)	ppm	0.1	—	1	Ion Chromatography
Sulfate (SO_4^{2-})	ppm	0.2	—	1	Ion Chromatography
Substances Darkened By Sulfuric Acid	—	Passes Test	—	—	ACS
Acidity Meq G	meq/g	0.0002	—	0.0004	Titration
Aldehydes As Hcho	ppm	1	—	5	Spectrophotometry
Alkalinity	—	Passes Test	—	—	ACS
Isopropyl Alcohol	%	0.01	—	0.05	GC
Other Alcohols	%	0.02	—	0.1	GC

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**	97°C (207°F)
Melting / Freezing Point	-126°C (-195°F)	**Flash Point**	15°C (59°F)
Specific Gravity	0.803	**Solubility**	Soluble in water, alcohol, ether, and other organic solvents
Molecular Formula	C_3H_8O	**Molecular Weight**	60.10 g/mol
Vapor Pressure (20°C)	30 mmHg	**Viscosity (25°C)**	0.87 cP
Refractive Index (20°C)	1.3870	**Density (25°C)**	0.803 g/mL
Partition Coefficient (log P)	-0.2 to 0.5 (substance-dependent, typically around 0.1)	**Decomposition Temp.**	Not applicable under normal handling

APPLICATIONS

1. **Pharmaceutical** — n-Propyl Alcohol serves as a crucial solvent in the extraction of active pharmaceutical ingredients from plant materials. Its high purity ensures minimal contamination during the extraction process, leading to higher quality products.
2. **Chromatography** — In reversed-phase high-performance liquid chromatography (HPLC), n-Propyl Alcohol is commonly used as a mobile phase component for separating organic compounds. Its properties allow for effective separation and accurate analysis of complex mixtures.
3. **Industrial Cleaning** — n-Propyl Alcohol is an effective cleaning and degreasing agent in various industrial applications. Its solvency power removes residues and contaminants from surfaces, preparing them for subsequent processes.
4. **Chemical Synthesis** — n-Propyl Alcohol acts as a versatile intermediate in the production of various chemicals and pharmaceuticals. Its reactivity and purity make it a valuable building block for synthesizing complex molecules.
5. **Cosmetics** — n-Propyl Alcohol can be found as a solvent in cosmetic formulations. It assists in dissolving and blending various ingredients to achieve the desired product consistency and application.
6. **Printing** — n-Propyl Alcohol is sometimes employed as a solvent in printing inks and related processes. Its solvency helps to control the ink's viscosity and drying properties for optimal printing results.

STORAGE & HANDLING

n-Propyl Alcohol is a highly flammable liquid, so it must be stored in a cool, dry, well-ventilated area away from heat, sparks, and open flames. Proper storage minimizes the risk of fire and prevents degradation of the product, maintaining its purity and effectiveness over time.

- Store in a cool, dry, well-ventilated area away from heat sources.
- Use materials compatible with n-Propyl Alcohol, such as HDPE or glass containers.
- Avoid contact with strong oxidizing agents and acids.
- Keep container tightly closed when not in use to prevent evaporation.
- Use appropriate personal protective equipment (PPE) including gloves and goggles when handling.

AVAILABLE PACKAGING

- 1 Quart
- 1 Gallon
- 5 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]
- H318: Causes serious eye damage [Danger 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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