

PRODUCT IDENTIFICATION



Product Name: n-Propyl Alcohol ACS Grade

CAS Number: 71-23-8

Molecular Formula: C₃H₈O

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 is a high-purity solvent characterized by its 99.93% assay and exceptional clarity, meeting rigorous analytical standards. This clear, colorless liquid is an essential component for high-performance liquid chromatography and precision chemical synthesis.

Grade Significance: ACS Grade signifies that the product meets the stringent purity standards set by the American Chemical Society, ensuring it is suitable for laboratory and analytical use where high consistency is critical.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay Gc	%	99.93	99.5	100.0	GC
Color (APHA)	APHA	3	—	5	APHA
Residue On Evaporation	ppm	3	—	10	Evaporation
Water Karl Fischer	%	0.04	—	0.1	Karl Fischer
Acidity As Acetic	ppm	2	—	20	Titration
Aldehydes As Acetaldehyde	ppm	1	0	10	Spectrophotometry
Alkalinity	—	0.0003	—	0.0010	Per specification

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	207 °F at 760 mmHg (USCG, 1999)
Melting / Freezing Point	-195.2 °F (USCG, 1999)	Flash Point	77 °F (USCG, 1999)
Specific Gravity	0.803	Solubility	Soluble in water, alcohol, ether, and other organic solvents
Molecular Formula	C ₃ H ₈ O	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. **Analytical Chemistry** — Used as a mobile phase component in reversed-phase HPLC to ensure precise separation and identification of organic compounds.
2. **Pharmaceutical Manufacturing** — Functions as a high-purity solvent for the extraction of active pharmaceutical ingredients from complex plant materials.
3. **Industrial Cleaning** — Provides effective degreasing and cleaning capabilities for sensitive components where residue-free results are required.
4. **Chemical Synthesis** — Serves as a reliable intermediate in the production of various specialized chemical compounds and pharmaceutical precursors.

STORAGE & HANDLING

Due to its status as a highly flammable liquid with a flash point of 77 °F, n-Propyl Alcohol must be stored in a cool, well-ventilated area away from heat sources and ignition points. Proper containment prevents vapor buildup and ensures the chemical remains free from environmental contaminants that could compromise its high-purity specifications.

- 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 vapour
- H318: Causes serious eye damage
- H336: May cause drowsiness or dizziness

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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