

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 featuring an assay of 99.93% and exceptionally low impurity levels, such as 3 ppm for residue on evaporation. This clear, colorless liquid is widely utilized in sensitive laboratory and industrial processes where chemical consistency is paramount.

Grade Significance: ACS Grade signifies that this product meets the strict purity standards set by the American Chemical Society, ensuring it is suitable for use in demanding laboratory and analytical applications.

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** — Functions as a critical mobile phase component in reversed-phase high-performance liquid chromatography for the precise separation of complex organic compounds.
2. **Pharmaceutical Manufacturing** — Acts as an effective solvent for the extraction of active pharmaceutical ingredients from plant materials, ensuring high-quality yields.
3. **Industrial Cleaning** — Provides superior degreasing capabilities for precision parts where residue-free surfaces are required.
4. **Chemical Synthesis** — Serves as a reliable chemical intermediate in the production of diverse specialty chemicals and pharmaceutical compounds.

STORAGE & HANDLING

Due to its highly flammable nature and a flash point of 77 °F, n-Propyl Alcohol must be stored in a cool, well-ventilated area away from ignition sources. Maintaining proper storage integrity prevents the accumulation of vapors and ensures the product remains free from contamination or degradation.

- 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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