

PRODUCT IDENTIFICATION



Product Name: n-Propyl Alcohol
CAS Number: 71-23-8
Molecular Formula: C₃H₈O
Molecular Weight: 60.10 g/mol
Grade: Technical Grade
Purity / Concentration: 98.8%
Synonyms: 1-Propanol, Propyl Alcohol

PRODUCT OVERVIEW

n-Propyl Alcohol, also known as 1-Propanol, is a colorless, flammable liquid with a characteristic alcohol odor. It is a primary alcohol with the molecular formula C₃H₈O, commonly used as a solvent and in the production of various chemicals.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (wt%)	%	100.0	99.5	100.5	Gas Chromatography
Color (APHA)	APHA	3	—	5	ASTM D1209
Specific Gravity (20°C)	g/mL	0.803	0.802	0.806	ASTM D4052
Water Content	%	0.04	0	0.1	ASTM E203 (Karl Fischer)
Acidity As Acetic Acid	ppm	9	0	30	Titration (as acetic acid)
Aldehydes As Acetaldehyde	ppm	1	0	10	Colorimetric (as acetaldehyde)

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 (206.6°F)
Melting / Freezing Point	-126°C (-194.8°F)	Flash Point	15°C (59°F)
Specific Gravity	0.803	Solubility	Soluble in water and organic solvents
Molecular Formula	C ₃ H ₈ O	Molecular Weight	60.10 g/mol
Vapor Pressure (20°C)	33 mmHg	Viscosity (25°C)	0.87 cP
Refractive Index (20°C)	1.385	Density (25°C)	0.803 g/mL

APPLICATIONS

1. **Coatings & Inks** — Used as a solvent and flow agent in printing inks, flexographic coatings, and surface coating formulations where fast evaporation and good polymer compatibility are required.
2. **Chemical Manufacturing** — Feedstock in the production of n-propyl acetate, n-propylamine, propionaldehyde, and other downstream propyl derivatives.
3. **Industrial Maintenance** — Effective solvent for cleaning and degreasing metal parts, electronic assemblies, and manufacturing equipment, particularly where IPA evaporation rate is too high.
4. **Cosmetics & Pharmaceutical** — Used as an excipient and solvent in topical antiseptic, cosmetic, and pharmaceutical formulations.
5. **Specialty Chemicals** — Reaction medium and recrystallization solvent in fine and specialty chemical synthesis.

STORAGE & HANDLING

- Store in a cool, dry, well-ventilated area away from heat, sparks, and open flames.
- Bulk storage in HDPE, stainless steel, or epoxy-lined carbon steel drums and IBC totes. Avoid aluminum and zinc-coated containers.
- Keep containers tightly closed when not in use to prevent vapor release and moisture pickup.
- Segregate from strong oxidizers, strong acids, and reactive metals.
- Ground and bond all transfer equipment; use non-sparking tools and explosion-proof electrical fittings.
- Wear appropriate PPE including chemical-resistant gloves, splash goggles, and flame-resistant clothing during 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.

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

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