

### PRODUCT IDENTIFICATION



**Product Name:** n-Propyl Alcohol Technical Grade

**CAS Number:** 71-23-8

**Molecular Formula:** C<sub>3</sub>H<sub>8</sub>O

**Molecular Weight:** 60.10 g/mol

**Grade:** Technical Grade

**Purity / Concentration:** 98.8%

**Synonyms:** 1-Propanol, Propyl Alcohol

### PRODUCT OVERVIEW

n-Propyl Alcohol Technical Grade is a high-purity, clear solvent boasting a 98.8% concentration with exceptionally low moisture content at 0.04%. This versatile chemical is widely utilized across industrial sectors for its fast evaporation rate and excellent polymer compatibility.

**Grade Significance:** Technical Grade indicates that this product is manufactured to meet rigorous industrial standards, ensuring consistent performance and purity for manufacturing processes while remaining cost-effective.

### CERTIFICATE OF ANALYSIS — TYPICAL VALUES

| PARAMETER                 | UNIT | TYPICAL | MIN  | MAX   | TEST METHOD       |
|---------------------------|------|---------|------|-------|-------------------|
| Assay Gc                  | %    | 100.0   | 99.5 | 100.5 | GC                |
| Color (APHA)              | APHA | 3       | —    | 5     | APHA              |
| Water Karl Fischer        | %    | 0.04    | 0    | 0.1   | Karl Fischer      |
| Acidity As Acetic         | ppm  | 9       | 0    | 30    | Titration         |
| Aldehydes As Acetaldehyde | ppm  | 1       | 0    | 10    | Spectrophotometry |

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

### PHYSICAL & CHEMICAL PROPERTIES

|                                 |                                 |                         |                                       |
|---------------------------------|---------------------------------|-------------------------|---------------------------------------|
| <b>Appearance</b>               | Clear, colorless liquid         | <b>Odor</b>             | Characteristic alcohol odor           |
| <b>Form</b>                     | Liquid                          | <b>Boiling Point</b>    | 207 °F at 760 mmHg (USCG, 1999)       |
| <b>Melting / Freezing Point</b> | -195.2 °F (USCG, 1999)          | <b>Flash Point</b>      | 77 °F (USCG, 1999)                    |
| <b>Specific Gravity</b>         | 0.803                           | <b>Solubility</b>       | Soluble in water and organic solvents |
| <b>Molecular Formula</b>        | C <sub>3</sub> H <sub>8</sub> O | <b>Molecular Weight</b> | 60.10 g/mol                           |
| <b>Vapor Pressure (20°C)</b>    | 33 mmHg                         | <b>Viscosity (25°C)</b> | 0.87 cP                               |
| <b>Refractive Index (20°C)</b>  | 1.385                           | <b>Density (25°C)</b>   | 0.803 g/mL                            |

## APPLICATIONS

1. **Printing and Coatings** — Functions as a critical solvent and flow agent in flexographic inks and surface coatings to ensure smooth application and rapid drying.
2. **Chemical Manufacturing** — Serves as a fundamental feedstock for the synthesis of n-propyl acetate, n-propylamine, and various other valuable propyl derivatives.
3. **Industrial Cleaning** — Used as an effective degreaser for metal parts and electronic assemblies where a controlled evaporation rate is required for optimal cleaning.
4. **Cosmetics and Pharmaceuticals** — Acts as a reliable excipient and solvent in topical antiseptic and cosmetic formulations requiring high-purity ingredients.

## STORAGE & HANDLING

Due to its flash point of 77 °F, n-Propyl Alcohol is classified as a flammable liquid and must be stored in a cool, well-ventilated area away from ignition sources. Proper containment prevents vapor buildup and ensures the chemical remains free from moisture or contamination, maintaining its specified technical integrity.

- 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: **Warning**



Hazard Statements:

- H226: Flammable liquid and vapor

**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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