

# DOWANOL PnP

## Propylene Glycol n-Propyl Ether

$C_3H_7OCH_2CH(CH_3)OH$  (Major isomer)

**A fast-evaporating glycol ether with an excellent balance of hydrophilic and hydrophobic character; outstanding soil removal and coupling properties**

### Introduction

DOWANOL\* PnP glycol ether offers an excellent balance between hydrophilic and hydrophobic character; it is our most hydrophobic glycol ether that still maintains complete water solubility. DOWANOL PnP glycol ether is our P-series product that most closely matches the properties of Butyl CELLOSOLVE™ glycol ether.

Its primary use is in cleaning products, where its fast evaporation rate and excellent ability to solubilize organic soils makes it useful in a wide variety of formulation systems. DOWANOL PnP glycol ether is an excellent choice in glass cleaners and all-purpose cleaners, especially in combination with selected PM-series glycol ethers.

### Physical properties†

Molecular weight (g/mol)		118.2
Boiling point @ 760 mmHg, 1.01 bar	300°F	149°C
Flash point (Setaflash Closed Cup)	118°F	48°C
Freezing point	-112°F	-80°C
Vapor pressure@ 20°C — extrapolated		1.5 mmHg 2.1 mbar
Specific gravity (25/25°C)		0.883
Density @ 20°C	7.38 lb/gal	0.885 g/cm <sup>3</sup>
@ 25°C	7.34 lb/gal	0.880 g/cm <sup>3</sup>
Viscosity (cP or mPa.s @ 25°C)		4.4
Surface tension (dynes/cm or mN/m @ 25°C)		25.4
Specific heat (J/g°C @ 25°C)		1.98
Heat of vaporization (J/g) at normal boiling point		369
Net heat of combustion (kJ/g) — predicted @ 25°C		30.0
Autoignition temperature	—	—
Evaporation rate	(n-butyl acetate = 1.0) (diethyl ether = 1.0)	0.21 57
Solubility, g/100 g @ 25°C		
Solvent in water		∞
Water in solvent		∞
Hansen solubility parameters (J/cm <sup>3</sup> ) <sup>1/2</sup>		
_d (Dispersion)		15.1
_p (Polar)		5.7
_h (Hydrogen bonding)		11.7
Flammable limits (vol.% in air)		
Lower (measured @ 25°C)		1.10
Upper		—

† The physical property data listed here are considered to be typical properties, not specifications.

### Classification/Registry Numbers††

CAS Number	1569-01-3
AICS (Australia)	569-01-3
DSL (Canada)	1569-01-3
ECL (Korea)	9312-11432
EINECS (EU)	216-372-4
MITI (Japan)	7-97
TSCA (U.S.)	1569-01-3

†† **NOTE:** Classifications apply only to this glycol ether product. It is the responsibility of the formulator to ensure that the final finished product complies with the regulations of a given country prior to its sale or distribution in that country.

*(Please see reverse side)*

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### Suggested applications

- Coupling agent and solvent in household and industrial cleaners, grease and paint removers, metal cleaners, and hard surface cleaners.
- n blends with other P-series glycol ethers, effective coalescent in water-borne latex coatings.
- Coupling cosolvent in water-reducible aerosol paint formulations.

### Features

- Colorless
- Low odor
- Completely water soluble
- Excellent balance of aqueous and organic solubility
- Good chemical stability
- Excellent solvent properties
- Efficient surface tension reduction ability
- Low toxicity
- Wide range of applications
- Alternative to Butyl CELLOSOLVE glycol ether (formerly known as DOWANOL EB ethylene glycol butyl ether)

NOTE: Consult the appropriate Material Safety Data Sheet for safety and handling guidelines for this product.

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