



DOWANOL PM

Propylene Glycol Methyl Ether



A fast-evaporating, hydrophilic glycol ether with excellent active solvency and coupling abilities

Introduction

DOWANOL* PM glycol ether is the fastest evaporating solvent in the DOWANOL glycol ether family. With very high water solubility and active solvency, DOWANOL PM glycol ether is widely used in coating and cleaning applications. It offers better viscosity reduction than heavier molecular weight glycol ethers and is particularly effective in epoxy and high solids acrylic systems. DOWANOL PM can also be used in combination with DOWANOL PnB glycol ether in glass cleaning formulations.

Physical properties†

Molecular weight (g/mol)	90.1	
Boiling point @ 760 mmHg, 1.01 bar	248°F	120°C
Flash point (Setaflash Closed Cup)	88°F	31°C
Freezing point	-143°F	-97°C
Vapor pressure@ 20°C — extrapolated	8.7 mmHg 11.6 mbar	
Specific gravity (25/25°C)	0.919	
Density @ 20°C	7.69 lb/gal	0.921 g/cm ³
@ 25°C	7.65 lb/gal	0.916 g/cm ³
Viscosity (cP or mPa·s @ 25°C)	1.7	
Surface tension (dynes/cm or mN/m @ 25°C)	27.7	
Specific heat (J/g/°C @ 25°C)	2.44	
Heat of vaporization (J/g) at normal boiling point	435	
Net heat of combustion (kJ/g) — predicted @ 25°C	24.7	
Autoignition temperature	536°F	287°C
Evaporation rate	(n-butyl acetate = 1.0)	0.62
	(diethyl ether = 1.0)	20
Solubility, g/100 g @ 25°C		
Solvent in water	∞	
Water in solvent	∞	
Hansen solubility parameters (J/cm ³) ^{1/2}		
δ _d (Dispersion)	15.6	
δ _p (Polar)	7.2	
δ _h (Hydrogen bonding)	13.6	
Flammable limits (vol.% in air)		
Lower (measured @ 150°C)	1.48	
Upper (measured @ 150°C)	13.74	

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

Classification/Registry Numbers††

CAS Number	107-98-2
AICS (Australia)	107-98-2
DSL (Canada)	107-98-2
ECL (Korea)	2-343
EINECS (EU)	203-539-1
MITI (Japan)	2-404
TSCA (U.S.)	107-98-2

(Please see reverse side)

†† **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.

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Suggested applications

- Active solvent for solvent-based coatings.
- Active and tail solvent for solvent-based gravure and flexographic printing inks.
- Coupling agent in solvent blends for water-based gravure, flexographic, and silk screen printing inks.
- Carrier solvent for ball point and felt tip writing pen inks.
- Coupling agent and solvent for household and industrial cleaners, rust removers, and hard surface cleaners.
- Solvent for agricultural pesticides, deactivator and emollient for livestock pesticides.

Features

- Powerful solvency
- Moderate evaporation rate
- Low viscosity
- High dilution ratio
- Low surface tension
- Coupling ability
- Wide range of applications

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

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