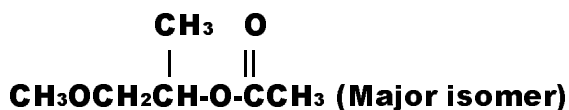




DOWANOL PMA

Propylene Glycol Methyl Ether Acetate



A relatively fast-evaporating, moderately hydrophobic glycol ether with low viscosity and excellent properties for solvent-borne systems

Introduction

DOWANOL* PMA glycol ether has the lowest viscosity of the entire line of DOWANOL glycol ethers (1.1 centipoise at 25°C), and it provides superb viscosity reduction. The remaining OH group in the glycol ether molecule is capped with an acetate group, which reduces its polarity and reduces the solvent's viscosity. The acetate group also eliminates the reactive hydrogen from the OH group found in other glycol ethers; thus, DOWANOL PMA glycol ether is an excellent solvent choice for urethanes and other proton-sensitive systems. DOWANOL PMA glycol ether is a relatively fast-evaporating glycol ether, and it sets a performance standard in high-solids, solvent-borne systems. It provides excellent active solvency for a very wide range of resin types, including acrylics, epoxies, alkyds, polyesters, and many others.

Physical properties†

Molecular weight (g/mol)	132.2	
Boiling point @ 760 mmHg, 1.01 bar	295°F	146°C
Flash point (Tag Closed Cup)	108°F	42°C
Freezing point	-87°F	-66°C
Vapor pressure@ 20°C — extrapolated	2.8 mmHg 3.7 mbar	
Specific gravity (25/25°C)	0.966	
Density @ 20°C	8.08 lb/gal	0.968 g/cm ³
@ 25°C	8.04 lb/gal	0.963 g/cm ³
Viscosity (cP or mPa·s @ 25°C)	0.8	
Surface tension (dynes/cm or mN/m @ 25°C)	26.9	
Specific heat (J/g°C @ 25°C)	1.85	
Heat of vaporization (J/g) at normal boiling point	296	
Net heat of combustion (kJ/g) — predicted @ 25°C	23.8	
Autoignition temperature	631°F	333°C

Evaporation rate (n-butyl acetate = 1.0) (diethyl ether = 1.0)	0.33 37
Solubility, g/100 g @ 25° C	
Solvent in water	19 (16 %)wt
Water in solvent	3.5 (3 %)wt
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Hansen solubility parameters (J/cm ³) ^{1/2}	
_d (Dispersion)	16.1
_p (Polar)	6.1
_h (Hydrogen bonding)	6.6
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Flammable limits (vol.% in air)	
Lower (measured @ 170° C)	1.50
Upper (measured @ 180° C)	7.00

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

Classification/Registry Numbers††

CAS Number	108-65-6
AICS (Australia)	108-65-6
DSL (Canada)	108-65-6
ECL (Korea)	2-759
EINECS (EU)	203-603-9
MITI (Japan)	2-3144
TSCA (U.S.)	108-65-6

†† 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.

Suggested Applications

- Active solvent for solvent-based coatings.
- Active solvent for solvent-based silk screen printing inks.
- Aprotic solvent in coating systems where OH reactivity is unwanted (e.g. PU/isocyanate and epoxy).

Features

- Powerful solvency
- High dilution ratio
- Moderate evaporation rate
- Viscosity control

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

*The Dow Chemical Company
Midland, Michigan 48674 U.S.A.

In The United States And Canada:
1-800-447-4369
Fax: 1-989-832-1465

In Europe: +800 3 694 6367
Toll Phone: +32 3 450 2240
Toll Fax: +32 3 450 2815

In The Pacific: +800 7776 7776
Fax: +800 7779 7779
In Other Global Areas: 1-989-832-1556
Fax: 1-989-832-1465

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