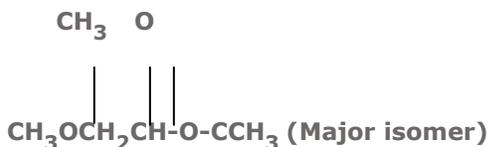




DOWANOL™ PMA

Propylene Glycol Methyl Ether Acetate



Description

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.

Typical Physical Properties

These properties are typical but do not constitute specifications.

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
Hansen solubility parameters (J/cm ³) ^{1/2}		
_d (Dispersion)		16.1
_p (Polar)		6.1
_h (Hydrogen bonding)		6.6

Flammable limits (vol.% in air)	
Lower (measured @ 170°C)	1.50
Upper (measured @ 180°C)	7.00

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.

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