Technical Data Sheet

DOWANOL™ DPM Glycol Ether

Synonyms Dipropylene glycol methyl ether

Chemical Formula $CH_3O[CH_2CH(CH_3)O]_2H$

Sustainability Attribute:

Returna™ Advancing biodegradability with Dow

Product Description

DOWANOL™ DPM Glycol Ether is a mid-to slow evaporating solvent. This hydrophilic solvent has 100% water solubility and is ideally suited as a coupling agent in a wide range of solvent systems. DOWANOL™ DPM Glycol Ether has a higher flash point than DOWANOL™ PM Glycol Ether making it easier to handle, store, and ship. Often incorporated into latex emulsion coatings DOWANOL™ DPM Glycol Ether can be used to prevent shocking (coagulation of emulsion) when hydrophobic solvents are used. More broadly, its hydrophilic nature makes it an ideal coupling aid in water reducible coatings, and cleaning applications. DOWANOL™ DPM Glycol Ether's intermediate evaporation rate allow it to be used in a potentially wider range of systems than many other solvents.

Applications

- Coupling agent (often in blends) for water-based dilutable coatings.
- Active solvent for solvent-based coatings.
- Coupling agent and solvent in household and industrial cleaners, grease and paint removers, metal cleaners, and hard surface cleaners.
- Tail solvent for solvent-based gravure and flexographic printing inks.
- Primary solvent in solvent-based silk screen printing inks.
- Coupling agent in solvent blends for water-based gravure, flexographic, and silk screen, printing inks.
- Coupling agent and solvent for vat dyeing fabrics.
- Mutual solvent, coupling agent, and emollient in cosmetic formulations.
- Stabilizer for agricultural herbicides.
- Coalescent for floor polishes and finishes

Typical Physical Properties

Property	Unit	Value
Molecular weight	g/mol	148.2
Boiling point @ 760 mmHg, 1.01 ar	°C (°F)	190 (374)
Flash point (Setaflash closed cup)	°C (°F)	75 (167)
Freezing point	°C (°F)	-83 (-117)

Typical Physical Properties (Cont.)

Property	Unit	Value
Vapor pressure@ 20°C — extrapolated	mmHg	0.28
	Pa	37.1
Specific gravity (25/25°C)		0.951
Liquid density @ 20°C	g/cm^3	0.953
@25°C	g/cm^3	0.948
Vapor density (air = 1)		5.11
Viscosity (@ 25°C)	cP or mPa•s	3.7
Surface tension (@ 20°C)	dynes/cm or mN/m	68.7 @ 1000 mg/L
Specific heat (@ 25°C)	J/g/°C	2.25
Heat of vaporization at normal boiling point	J/g	267
Net heat of combustion — predicted @ 25°C	kJ/g	27.2
Autoignition temperature	°C (°F)	207 (405)
Evaporation rate (n-butyl acetate = 1.0)		0.035
Solubility, g/100 or % @ 25°C Solvent in water	%	100
Hansen solubility parameters	$(J/cm^3)_{1/2}$	
_d (Dispersion)		15.5
_p (Polar)		4.0
_h (Hydrogen bonding		11.5
Partition Coefficient, n-octonol/water (log Pow)		1.01
Flammable limits		
Lower	vol.% in air	1.1
Upper		14

Typical Physical Properties:
This data provided for those properties are typical values, and should not be construed as sales specifications

Classification/ Registry Numbers/Country Inventory[1]

CAS#	34590-94-8
AICS (Australia)	34590-94-8
DSL (Canada)	34590-94-8
IECSC (China)	34590-94-8
ECI (Korea)	34590-94-8
EINECS (EU)	252-104-2
MITI (Japan)	34590-94-8
ENCS/IHSL (Japan)	7-97
NZIoC (New Zealand)	34590-94-8
PICCS (Philippines)	34590-94-8
TSCA (U.S.)	34590-94-8

[1]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.

How Supplied

REGION	PACKAGING	TRANSPORT MODE
Europe/Africa	Bulk/Drum	Tank Truck
Latin America	Bulk/Drum	Tank Truck
North America	Bulk/Drum	Tank Truck/Tank Car
Pacific	Bulk/Drum	Tank Truck

Product Stewardship

Dow encourages its customers and potential users to review their applications from the standpoint of human health and environmental aspects. To help ensure that Dow products are not used in ways for which they are not intended or tested, Dow personnel will assist customers in dealing with environmental and product safety considerations. Dow literature, including Material Safety Data Sheets, should be consulted prior to the use.

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