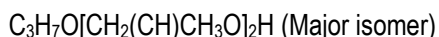




Technical Data Sheet

DOWANOL™ DPnP

Dipropylene Glycol n-Propyl Ether



Sustainability Attribute:

Description

A slow-evaporating glycol ether with an excellent balance of hydrophilic and hydrophobic character; provides outstanding coalescing and film properties



Introduction

DOWANOL™ DPnP glycol ether has a slower evaporation rate than DOWANOL™ PnP glycol ether, and it is slightly more hydrophobic. Yet overall, DOWANOL™ DPnP glycol ether has a near-midrange balance between hydrophobic and hydrophilic character, and it offers significant water solubility. This product is a good choice in coatings; it offers very good coalescing performance in blends with more hydrophobic materials such as DOWANOL™ PPh or PnB glycol ethers. DOWANOL™ DPnP glycol ether can also be blended with other materials to replace Butyl CELLOSOLVE™ glycol ether (formerly known as DOWANOL™ EB glycol ether).

Physical Properties¹

Property	Unit	Value
Molecular weight	g/mol	176.2
Boiling point @ 760 mmHg, 1.01 ar	°C (°F)	213 (415)
Flash point (Setaflash Closed Cup)	°C (°F)	88 (190)
Freezing point	°C (°F)	< -75 (< -103)
Vapor pressure @ 20°C — extrapolated	mmHg	0.08
	Pa	0.11
Specific gravity (25/25°C)		0.919
Density @ 20°C @ 25°C	lb/gal (g/cm ³)	7.68 (0.921)
	lb/gal (g/cm ³)	7.65 (0.916)
Viscosity (@ 25°C)	cP or mPa•s	11.4
Surface tension (@ 25°C)	dynes/cm or mN/m	27.8
Specific heat (@ 25°C)	J/g/°C	1.94
Heat of vaporization at normal boiling point	J/g	265
Net heat of combustion — predicted @ 25°C	kJ/g	29.7
Autoignition temperature	°C (°F)	205 (401)

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

Physical Properties (Cont.)

Property	Unit	Value
Evaporation rate (n-butyl acetate = 1.0)		0.014
(diethyl ether = 1.0)		903
Solubility g/100 g @ 25°C		
Solvent in water	g/100 g (wt%)	17.2 (15)
Water in solvent	g/100 g (wt%)	22.5 (18.5)
Hansen solubility parameters		
δ_d (Dispersion)	J/cm ³) ^{1/2}	15.0
δ_p (Polar)		3
δ_h (Hydrogen bonding)		9.6
Flammable limits		
Lower (measured @ 25°C)	vol.% in air	0.68
Upper		

Classification/ Registry Numbers/Country Inventory¹

CAS#	29911-27-1
AICS (Australia)	29911-27-1
DSL (Canada)	Pending – contact a Dow representative
ECI (Korea)	Not registered
EINECS (EU)	249-949-4
MITI (Japan)	7-97
TSCA (U.S.)	29911-27-1

¹NOTE: 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

- Coalescent for water-borne latex coatings.
- Active solvent for solvent-borne coatings.

Features

- Colorless
- Low odor
- Moderately soluble in water (19 ml/100 ml)
- Good chemical stability
- Excellent solvent properties
- Very efficient surface tension reduction
- Low toxicity
- Wide range of applications
- Cleaning agent

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

Contact:

www.dow.com/contact

Notice: No freedom from any patent owned by Seller or others is to be inferred. Because use conditions and applicable laws may differ from one location to another and may change with time, Customer is responsible for determining whether products and the information in this document are appropriate for Customer's use and for ensuring that Customer's workplace and disposal practices are in compliance with applicable laws and other governmental enactments. Seller assumes no obligation or liability for the information in this document. NO WARRANTIES ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.

