



**DOWANOL EPh**  
Ethylene Glycol Phenyl Ether



**A slow-evaporating glycol ether with high polymer solvency and excellent coalescing abilities; specifications meet needs for cosmetics, cleaners, and textile processing**

### Introduction

DOWANOL\* EPh glycol ether is an aromatic, slow-evaporating glycol ether. It can be used in dyeing synthetic fibers, both as a dye solubilizer and as a dye carrier. DOWANOL EPh glycol ether is also a very efficient coalescing agent. It finds additional uses in cosmetics and cleaning products.

### Physical properties†

Molecular weight (g/mol)		138.2
Boiling point @ 760 mmHg, 1.01 bar	471°F	244°C
Flash point (Tag Closed Cup)	250°F	121°C
Freezing point	54°F	12°C
Vapor pressure@ 20°C — extrapolated		0.004 mmHg 0.006 mbar
Specific gravity (25/25°C)		1.109
Density @ 20°C	9.26 lb/gal	1.110 g/cm <sup>3</sup>
@ 25°C	9.23 lb/gal	1.106 g/cm <sup>3</sup>
Viscosity (cP or mPa.s @ 25°C)		21.5
Surface tension (dynes/cm or mN/m @ 25°C)		42.0
Specific heat (J/g°C @ 25°C)		2.20
Heat of vaporization (J/g) at normal boiling point		376
Net heat of combustion (kJ/g) — predicted @ 25°C		29.1
Autoignition temperature	923°F	495°C
Evaporation rate (n-butyl acetate = 1.0) (diethyl ether = 1.0)		0.001 >1200
Solubility, g/100 g @ 25°C		
Solvent in water		2.5 (2.5 %)wt
Water in solvent		10 (9 %)wt
Hansen solubility parameters (J/cm <sup>3</sup> ) <sup>1/2</sup>		
_d (Dispersion)		17.8
_p (Polar)		5.3
_h (Hydrogen bonding)		12.3

Flammable limits (vol.% in air)	
Lower (measured @ 170°C)	0.95
Upper (measured @ 180°C)	--

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

## Classification/Registry Numbers††

CAS Number	122-99-6
AICS (Australia)	122-99-6
DSL (Canada)	122-99-6
ECL (Korea)	3-2898
EINECS (EU)	204-589-7
MITI (Japan)	3-558
TSCA (U.S.)	122-99-6

†† **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

- Latex coalescent in water-based architectural and industrial coatings.
- Solvent and plasticizer for nitrocellulose, cellulose acetate, ethyl cellulose, and many vinyl, phenolic, alkyd, and ester-type resins in water-based coatings.
- Solvent in printing inks.
- Carrier solvent for textile dyes.
- Emulsifier to help lower interfacial tension in oil-water emulsions.
- Ingredient in slurring compounds used to protect metal surfaces against corrosion.
- Intermediate for bactericidal agents.
- Coalescent for latex adhesives.
- Paint removers.
- Cosmetic ingredient.
- Perfume fixative.

## Features

- Coalescing ability
- High polymer solvency
- Low evaporation rate
- Wide range of applications

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

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Published March 2004

