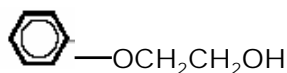




DOWANOL™ EPh Glycol Ether Ethylene Glycol Phenyl Ether



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. It is effective in the formulation of homogeneous, stable metalworking fluids.

Physical properties†

| | | |
|---|-------------|--------------------------|
| Molecular weight (g/mol) | | 138.2 |
| Boiling point @ 760 mmHg, 1.01 bar | 471°F | 244°C |
| Flash point (Setaflash Closed Cup) | 246°F | 119°C |
| Freezing point | 59°F | 15°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 ³ |
| @ 25°C | 9.23 lb/gal | 1.106 g/cm ³ |
| Viscosity (cP or mPa·s @ 25°C) | | 19.6 |
| 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) @ normal boiling point | | 376 |
| Net heat of combustion (kJ/g) — predicted @ 25°C | | 29.1 |
| Lower Flammable Limit (mole %) @125°C | | 0.95 |
| Autoignition temperature | 923°F | 495°C |
| Evaporation rate (n-butyl acetate = 1.0) (diethyl ether = 1.0) | | 0.001 >1200 |
| Solubility, g/100g @ 25°C | | |
| Solvent in water | | 3.1 (3.0%) wt |
| Water in solvent | | 13.6 (12%) wt |
| Hansen solubility parameters (J/cm ³) ^{1/2} | | |
| _d (Dispersion) | | 17.8 |
| _p (Polar) | | 5.7 |
| _h (Hydrogen bonding) | | 14.3 |
| 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.

Chemical Inventory/Registry Numbers††

| | |
|--------------------------------------|-----------|
| CAS Number | 122-99-6 |
| AICS (Australia) | 122-99-6 |
| DSL (Canada) | 122-99-6 |
| IECSC (China) | 122-99-6 |
| ECL (Korea) | 3-2898 |
| EINECS (EU) | 204-589-7 |
| New Zealand (NZIoC) | 122-99-6 |
| Phillippines (PICCS) | 122-99-6 |
| Switzerland (Consolidated Inventory) | 122-99-6 |
| ENCS (Japan) | 3-558 |
| TSCA (U.S.) | 122-99-6 |

†† **NOTE:** Inventory / Registry 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.
- Formulation of stable metalworking fluids.
- 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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