



Hexyl CELLOSOLVE Solvent Ethylene Glycol Monohexyl Ether



A glycol ether solvent with high boiling point and excellent solvency

Introduction

Hexyl CELLOSOLVE™ Solvent is a high boiling point, slow evaporating rate solvent with excellent solvency characteristics. It has the characteristic structure of glycol ethers and contains both ether and alcohol functional groups in the same molecule. As a result, it provides unique cleaning power for removal of both water-soluble and greasy (water-insoluble) soils. The linear hexyl portion of Hexyl CELLOSOLVE Solvent provides excellent oil solubility characteristics that make it useful in both consumer and industrial cleaner applications. Hexyl CELLOSOLVE Solvent plays an important role in specialty printing inks. Because of its limited water solubility and slow evaporation, it can be used in formulations for the silk screen process to prevent premature setting of the ink.

Physical properties†

Molecular weight (g/mol)		146.2
Boiling point	406°F	208°C
Flash point	210°F	99°C
Freezing point ⁽¹⁾	-49°F	-45°C
Vapor pressure@ 20°C		0.05 mmHg
Specific gravity (20/20°C)		0.889
Density @ 20°C		7.41 lb/gal
Viscosity (@ 20°C)		5.2
Surface tension (dynes/cm @ 25°C)		27.7 (neat product) 27.1 (25% aq. solution) ⁽²⁾
Specific heat (J/g°C @ 25°C)		2.296
Heat of vaporization (J/g) at normal boiling point		342.76
Net heat of combustion (kJ/g) — predicted @ 25°C		32.6
Autoignition temperature	536°F	280°C
Evaporation rate	(n-butyl acetate = 1.0)	<0.01
Solubility @ 20°C by weight		
Solvent in water		0.9
Water in solvent		17.7
Hansen solubility parameters (J/cm ³) ^{1/2}		
_d (Dispersion)		16.2
_p (Polar)		5.5
_h (Hydrogen bonding)		9.0
Flammable limits (vol. % in air)		
Lower		1.4
Upper		9.0

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

Classification/Registry Numbers††

CAS Number	112-25-4
AICS (Australia)	112-25-4
DSL (Canada)	112-25-4
ECL (Korea)	KE-13669 ⁽¹⁾
EINECS (EU)	203-95-1
MITI (Japan)	7-97 ⁽²⁾
TSCA (U.S.)	112-25-4

†† **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

- Solvent in specialty printing inks
- Coalescent for water-borne, latex-based coatings
- Coupling agent and solvent in household and industrial cleaners, rust removers, hard surface cleaners, and disinfectants
- Primary solvent in solvent-based silk screen printing inks

Features

- High boiling point
- Excellent solvency
- Superior oil solubility
- Slow evaporation rate

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

Product Stewardship

The Dow Chemical Company has a fundamental concern for all who make, distribute, and use our family of glycol ether products and the environment we share. This concern is the basis for our Product Stewardship philosophy, by which we assess all available information on our products and then take appropriate steps to protect employee and public health and the environment. In addition, Dow is committed to implementing the guiding principles and management practices of the chemical industry's Responsible Care[†] initiative, which includes Product Stewardship as one of the Management Practices. As part of our Product Stewardship effort, information such as Material Safety Data Sheets and literature on DOW glycol ethers are provided to assist customers in handling our glycol ether products in a safe and responsible manner.

[†] Service mark of The Chemical Manufacturer's Association

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