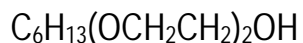




## Hexyl CARBITOL Solvent

Diethylene Glycol Monoethyl Ether



### Provides greater solubility with water, provides good flow and leveling

#### Introduction

Hexyl CARBITOL™ Solvent, like Hexyl CELLOSOLVE™ Solvent, displays a strong hydrocarbontype solvency. The increased ether functionality of Hexyl CARBITOL Solvent provides greater solubility with water than Hexyl CELLOSOLVE Solvent.

Hexyl CARBITOL Solvent is a slow evaporating solvent that partitions primarily into the polymer phase of a waterborne coating and reduces minimum filming temperature. It can be used with associative thickeners to enhance application properties such as brushability or roll application in high performance coatings.

Its slow evaporation and excellent solvency characteristics contribute good flow and leveling to high solids coatings during the drying/ curing cycle. This allows uniform diffusion of the solvent through the film and maximizes appearance and film properties by reducing the occurrence of defects due to solvent-pop and air entrapment.

#### Physical properties†

Molecular weight (g/mol)		190.3
Boiling point	489°F	54°C
Flash point <sup>(1)</sup>	260°F	126°C
Freezing point	-29°F	-34°C
Vapor pressure@ 20°C		<0.01 mmHg
Specific gravity (20/20°C)		0.935
Density @ 20°C		7.79 lb/gal
Viscosity (20°C, cP)		8.5
Surface tension (dynes/cm @ 25°C)		29.8 (neat product) 28.3 (25% aq. Solution) <sup>(2)</sup>
Specific heat (J/g°C @ 25°C)		
Heat of vaporization (J/g) at normal boiling point		
Net heat of combustion (kJ/g) — predicted @ 25°C		
Autoignition temperature	581°F	305°C
Evaporation rate	(n-butyl acetate = 1.0)	<0.01
Solubility, g/100 g @ 25°C		
Solvent in water		1.37
Water in solvent		56.3

Hansen solubility parameters (J/cm <sup>3</sup> ) <sup>1/2</sup>	
_d (Dispersion)	16.0
_p (Polar)	6.0
_h (Hydrogen bonding)	10.0
Flammable limits (vol.% in air)	
Lower	0.7
Upper	13.0

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

<sup>1</sup> Pensky-Martens Closed Cup.

<sup>2</sup> Percent by weight: 90% Hexyl CARBITOL Solvent; 10% water (solubility limitations).

## Classification/Registry Numbers††

CAS Number	112-59-4
AICS (Australia)	112-59-4
DSL (Canada)	112-59-4
ECL (Korea)	KE-19904 <sup>(1)</sup>
EINECS (EU)	203-998-3
MITI (Japan)	7-97 <sup>(2)</sup>
TSCA (U.S.)	112-59-4

<sup>1</sup>Korean Inventory of Chemicals

<sup>2</sup>Japanese Inventory (ENCS)

†† **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

- Coalescing aid in waterborne emulsion or dispersion coatings
- Cleaners for removal of greasy soils
- Metal deco inks

### Features

- Strong hydrocarbon-type solvency
- Slow evaporation rate
- Promotes uniform diffusion, eliminates solvent-pop and air entrapment

**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<sup>†</sup> 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.

<sup>†</sup> Service mark of The Chemical Manufacturer's Association

\*The Dow Chemical Company  
Midland, Michigan 48674 U.S.A.

In The United States And Canada:  
1-800-447-4369  
Fax: 1-989-832-1465

In Europe: +800 3 694 6367  
Toll Phone: +32 3 450 2240  
Toll Fax: +32 3 450 2815

In The Pacific: +852 2879 7260  
Fax: +852 2827 5881  
In Other Global Areas: 1-989-832-1556  
Fax: 1-989-832-1465

**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.

Published March 2004

