Technical Data Sheet

# Hexyl CELLOSOLVE™ Solvent

**Synonyms**

Ethylene glycol monohexyl ether; n-hexylglycol.

**Sustainability Attribute:**

**Chemical Formula**

$C_6H_{13}OCH_2CH_2OH$

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**Product Description**

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.

**Uses / 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

## Typical Physical Properties

| Property | Unit | Value |
|---|---|---|
| Molecular weight | g/mol | 146.2 |
| Boiling point @ 760 mmHg, 1.01 ar | °C (°F) | 208 (406) |
| Flash point (Setaflash Closed Cup) | °C (°F) | 91.5 (210) |
| Freezing point | °C (°F) | -50 (-58) |
| Vapor pressure @ 20°C — extrapolated | mmHg<br>kPa | 0.05<br>0.01 |
| Specific gravity (25/25°C) | | 0.889 |
| Liquid density @ 20°C | g/cm$^3$ (lb/gal) | 0.888 (7.41) |
| Vapor density (air = 1) | | 5 |

**Typical Physical Properties:**
This data provided for those properties are typical values, and should not be construed as sales specifications.

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## Typical Physical Properties (Cont.)

| Property | Unit | Value |
|---|---|---|
| Viscosity (@ 25°C) | cP or mPa•s | 4.5 |
| Surface tension (@ 20°C) | dynes/cm or mN/m | 27.7 (neat product)<br>27.1 (25% aq. Sol'n) |
| Specific heat (@ 25°C) | J/g/°C | 2.296 |
| Heat of vaporization at normal boiling point | J/g | 342.76 |
| Net heat of combustion — predicted @ 25°C | kJ/g | 32.6 |
| Autoignition temperature | °C (°F) | 225 (437) |
| Evaporation rate (n-butyl acetate = 1.0) | | < 0.01 |
| Solubility, g/L or % @ 25°C | | |
| Solvent in water | g/L | 9.46 |
| Hansen solubility parameters | $(J/cm^3)^{1/2}$ | |
| $_d$ (dispersion) | | 16.2 |
| $_p$ (polar) | | 5.5 |
| $_h$ (hydrogen bonding) | | 9.0 |
| Partition coefficient, n-octonol/water | log Pow | 1.97 |
| Flammable limits | vol.% in air | |
| Lower | | 1.4 |
| Upper | | 9.0 |

## Classification/ Registry Numbers/Country Inventory[1].

| | |
|---|---|
| CAS# | 112-25-4 |
| AICS (Australia) | 112-25-4 |
| DSL (Canada) | 112-25-4 |
| IECSC (China) | 112-25-4 |
| ECI (Korea) | 112-25-4/KE-13669 |
| EINECS (EU) | 203-951-1 |
| MITI (Japan) | 112-25-4 |
| ENCS/IHSL (Japan) | 2-2424 |
| NZIoC (New Zealand) | 112-25-4 |
| PICCS (Philippines) | 112-25-4 |
| TSCA (U.S.) | 112-25-4 |

[1]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.


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## How Supplied

| REGION | PACKAGING | TRANSPORT MODE |
|---|---|---|
| Europe/Africa | Bulk/Drum | Tank Truck |
| Latin America | Drum | Not Applicable |
| North America | Bulk/Drum | Tank Truck/Tank Car |
| Pacific | Bulk/Drum | Tank Truck |

## Product Stewardship

Dow encourages its customers and potential users to review their applications from the standpoint of human health and environmental aspects. To help ensure that Dow products are not used in ways for which they are not intended or tested, Dow personnel will assist customers in dealing with environmental and product safety considerations. Dow literature, including Material Safety Data Sheets, should be consulted prior to the use.

**Contact:**
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