



## Technical Data Sheet

### Methyl CARBITOL™ Solvent

**Synonyms** Diethylene glycol monomethyl ether; 2-(2-Methoxyethoxy) ethanol.

**Chemical Formula** CH<sub>3</sub>(OCH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>OH

**Product Description** Methyl CARBITOL™ glycol ether is a very hydrophilic, slow-evaporating glycol ether. Its primary use is as a de-icing additive for aviation fuel. Methyl CARBITOL™ glycol ether can also be used in coalescing blends with other solvents where high polymer solvency and tailing activities are needed.

**Applications**

- Active solvent for solvent-based silk screen printing inks.
- Jet fuel anti-icing additive.
- Solvent for stamp pad inks and ball point and felt tip writing pen inks.
- Solvent for pastes used in printing cellulose acetate and polyester fabrics.
- Solvent and coupling agent for vat dyeing fabrics.
- Solvent and coupling agent for rust removers, aluminum brighteners, and paint and varnish removers.

### Typical Physical Properties

Property	Unit	Value
Molecular weight	g/mol	120.2
Boiling point @ 760 mmHg, 1.01 ar	°C (°F)	194 (381)
Flash point (Setaflash Closed Cup)	°C (°F)	91 (195.8)
Freezing point	°C (°F)	-85 (-119)
Vapor pressure @ 20°C — extrapolated	mmHg	0.19
	kPa @ 25°C	0.024
Specific gravity (25/25°C)		1.020
Liquid density @ 20°C	g/cm <sup>3</sup>	1.022
	@ 25°C	g/cm <sup>3</sup>
Vapor density (air = 1)		4.2
Viscosity (@ 25°C)	cP or mPa•s	3.5
Surface tension (@ 20°C)	dynes/cm or mN/m	34.8
Specific heat (@ 25°C)	J/g°C	2.30

This data provided for those properties are typical values, and should not be construed as sales specifications.

## Typical Physical Properties (Cont.)

Property	Unit	Value
Heat of vaporization at normal boiling point	J/g	369
Net heat of combustion — predicted @ 25°C	kJ/g	23.6
Autoignition temperature	°C (°F)	215 (419)
Evaporation rate (n-butyl acetate = 1.0)		0.019
Solubility, g/L or % @ 25°C		
Solvent in water	%	100
Hansen solubility parameters		
$\delta$ (Dispersion)	$J/cm^3)^{1/2}$	16.2
$\rho$ (Polar)		7.8
$\pi$ (Hydrogen bonding)		12.6
Partition coefficient, n-octanol/water	log Pow	-0.47
Flammable limits		
Lower	vol.% in air	1.38
Upper		22.70

## Classification/ Registry Numbers/Country Inventory<sup>1</sup>

CAS#	111-77-3
AICS (Australia)	111-77-3
DSL (Canada)	111-77-3
IECSC (China)	111-77-3
ECI (Korea)	111-77-3
EINECS (EU)	203-906-6
MITI (Japan)	2-422
ENCS/ISHL (Japan)	111-77-3
NZIoC (New Zealand)	111-77-3
PICCS (Philippines)	111-77-3
TSCA (U.S.)	111-77-3

<sup>1</sup>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.

## How Supplied

REGION	PACKAGING	TRANSPORT MODE
Europe/Africa	Bulk/Drum	Tank Truck
Latin America	Bulk	Tank Truck
North America	Bulk/Drum	Tank Truck/Tank Car
Pacific	Bulk/Drum	Tank Truck

## **Product Stewardship**

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**Contact:**

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