

Glycol Ether EB

2-butoxyethanol

CAS #: 111-76-2

Molecular Weight – 118.2

Description Glycol Ether EB is an excellent solvent and coalescent for solvent- and water-based paint, coating, ink and adhesive formulations. It has excellent solvency for a variety of resins including acrylic, alkyd, phenolic, epoxy, nitrocellulose and urethane resins. Glycol Ether EB is an important component in household and industrial cleaners, enhancing wetting and cleaning ability.

Glycol Ether EB is no longer subject to Maximum Achievable Control Technology (MACT) rules, residual risk, or other requirements specific to HAP-listed materials.

Product Identification

Chemical Name: 2-Butoxyethanol
 Chemical Family: Ethylene Glycol Ether
 Other Names: Ethylene glycol monobutyl ether, Glycol butyl ether, Butyl cellosolve
 Chemical Formula: $C_6H_{14}O_2$

Product Specifications*	Property	Specifications	Test Method
	Specific Gravity @20/20°C	0.901 – 0.904	ASTM D 891
	Distillation @ 760mm Hg		
	IBP, min.	169°C	ASTM D 1078
	DP, max	173°C	
	Acidity, wt. % as Acetic acid, max	0.01	ASTM D 1613
	Water, Wt. % max.	0.1	ASTM E 203
	Color, APHA, max.	10	ASTM E 1209
	GC Purity, Wt. %, min.	99.0	ACC 8314

*For the most current product specification, please call 1.888.777.0232.

Typical Properties	Property	Value
	• Autoignition temperature (°C)	244
	• Density (pounds per gallon at 25°C)	7.5
	• Evaporation Rate (BuAc = 100)	6
	• Flammability Limits (Lower/Upper Vol. %)	1.1/10.6
	• Flash Point (Tag Closed Cup) °C (°F)	72(161)
	• Solubility by weight in water @20°C	complete
	• Solubility by weight of water in EB@20°C	complete
	• Solubility Parameter (Total Hansen)	10.2
	• Surface Tension (Dynes/cm) @ 20°C (68°F)	26.6
	• Refractive Index @ 20°C (68°F)	1.419
	• Viscosity (centistokes) @20°C (68°F)	6.4
	• Vapor Pressure @ 20°C (mm Hg)	0.6

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Applications

Coatings

Glycol Ether EB is extensively used in many decorative and protective coating formulations.

Glycol Ether EB is an excellent coalescent for water based latex paints and “tail” solvent for solvent-borne lacquers and thermoset coatings. Glycol ether EB is commonly used in two-component solvent and waterborne epoxy coatings. It is not recommended for two-component urethane coatings. Glycol ether EB is also an excellent solvent for baking enamels, including coil coatings and conversion varnishes for wood and kitchen cabinets. Other uses include can coatings and electro-deposition coatings.

Cleaners

Glycol ether EB is widely used in water based industrial household cleaners because of its coupling ability, wetting properties, and high flash point. It is also used as a component of alkaline rust and paint removers, hard surface cleaners.

Other Applications

Glycol ether EB is a primary solvent in silk screen inks and a tail solvent and coalescent in printing inks for paper, board and flexible packaging.

EB is also used as a solvent for agricultural pesticides, as an intermediate in the synthesis of esters, and a component of cutting oils, and textile lubricants.

Storage

General industry practice is to store Glycol Ether EB in carbon steel vessels. Avoid contact with air when storing for long periods of time.

Store only in tightly closed, properly vented containers away from heat, sparks, open flame or strong oxidizing agents. Use only non-sparking tools. Ground containers before beginning transfer. Electrical equipment should conform to national electric code.

Handle empty containers carefully. Flammable combustible residue remains after emptying. Store in properly lined steel or stainless steel to avoid slight discoloration from mild steel. Glycol ethers should never be stored or handled in copper or copper alloys. This product may absorb water if exposed to air.

Safety and Handling

Glycol Ether EB has a flash point of 161°F. It is a Class IIIA combustible liquid (OSHA), and flammable liquid as defined under SARA Title 111, section 311/312 hazard category and is considered an acute hazard, a chronic health hazard and a fire hazard under SARA Title III, Section 311/312. It is also subject to the reporting requirements of SARA Title 111, section 313 (40 CFR Part 72327.5).

Undue exposure or spillage should be strictly avoided as a matter of good practice. Refer to the Material Safety Data Sheet for more specific information.

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Hazard ratings are summarized as follows:

	<u>HMIS</u>	<u>NFPA</u>
Health	2	2
Flammability	2	2
Reactivity	0	0
Personal Protection	B*	

*Personal protection recommendation should be made with consideration of specific work.

Toxicological Evaluation

Refer to the Material Safety Data Sheet for more specific information.

Regulatory Status

Glycol Ether EB was removed from the EPA list of Hazardous Air Pollutants (HAP list) on November 18, 2004.

Glycol Ether EB is on the U.S. TSCA inventory, EINECS list and Canadian DSL.

Refer to the Material Safety Data Sheet for more specific information.

Material Compatibility Guidelines

Stainless steel is recommended for valves, pumps and filters. Teflon® is suitable for gaskets. Buna N, butylene polymers and Neoprene are known to swell in contact with Glycol Ether EB. Information from material suppliers and specific conditions of contact should be considered in the selection of suitable materials.

Equistar Chemicals, LP is a member of the LyondellBasell group companies.

Before using a product sold by one of the LyondellBasell family of companies, users should make their own independent determination that the product is suitable for the intended use and can be used safely and legally. SELLER MAKES NO WARRANTY; EXPRESS OR IMPLIED (INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE) OTHER THAN AS SEPARATELY AGREED BETWEEN THE PARTIES IN WRITING. This product(s) may not be used in the manufacture of any US FDA Class III Medical Device or Health Canada Class IV Medical Device and may not be used in the manufacture of any US FDA Class II Medical Device or Health Canada Class II or Class III Medical Device without the prior written approval by Seller of each specific product or application.

Users should review the applicable Material Safety Data Sheet before handling the product.

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