

Physico-chemical and hazardous properties of glycol ethers

Glycol ether	Chemical name	Synonyms	Cas No.	m.p.	b.p.	autoign.	flashpt.	ref-index	Relative density	Water sol	Vapour pressure
				°C	°C	°C	°C	25°C	20C	g/l @20C	@20C
DEGME	2-(2-methoxyethoxy) ethanol	Diethylene glycol methyl ether Methyldiglycol	111-77-3	-85	190-196	240	(OC) 96 (CC) 91	1.427	1.021	Fully miscible	0.24hPa at 25°C
TEGME	2-(2-(2-methoxyethoxy)-ethoxy) ethanol	Triethyleneglycol (mono) methyl ether Methyltriglycol	112-35-6	-44	249.2		(OC) 118		1.049	Fully miscible	<0.013hPa
EGDEE	1,2-diethoxyethane	Ethylene glycol diethyl ether	629-14-1	-74	121	208	(OC) 35	1.3922	0.8484	204	12.5hPa
DEGEE	2-(2-ethoxyethoxy)ethanol	Diethylene glycol ethyl ether Ethyl diglycol	111-90-0	-76	197-205	204	(OC) 91	1.42- 1.426	0.988	Fully miscible	0.19hPa
DEGEEA	2-(2-ethoxyethoxy)ethanol acetate	Diethylene glycol ethyl ether acetat	112-15-2	<-25	210-220	295	(OC) 116		1.0096	Fully miscible	0.13hPa
DEGDDEE	bis (2-ethoxyethyl) ether	Diethylene glycol diethyl ether	112-36-7		189		(OC) 82		0.9063	Fully miscible	67hPa
TEGEE	2-(2-(2-ethoxyethoxy)-ethoxy) ethanol	Triethylene glycol ethyl ether Ethyltriglycol	112-50-5	-30	235-280	220	(OC) 135	1.438- 1.442	1.018 @25C	Fully miscible	<0.01hPa
EGiPE	2-isopropoxyethanol	Ethylene glycol isopropyl ether Isopropylglycol	109-59-1	<60	144	244	(OC) 33	1.407	0.903	Fully miscible	6.9hPa
EGnPE	2-(propoxy)ethanol	Ethylene glycol propyl ether	2807-30-9	-60	150-152		(OC) 51	1.412	0.9112	Fully miscible	1.3hPa at 25°C
EGnPEA	2-(propoxy)ethanol acetate	Ethylene glycol propyl ether acetate Propylglycolacetate	20706-25-6		173					50	0.67hPa
EGPhE	2-phenoxyethanol	Ethylene glycol monophenyl ether	122-99-6	13	246	535	(OC) 121	1.536	1.102	27	0.04hPa
EGBE	2-butoxyethanol	Ethylene glycol butyl ether	111-76-2	-77	171	238	(CC) 62	1.417	0.898	Fully miscible	1.17hPa
EGBEA	2-butoxyethanol acetate	Ethylene glycol butyl ether acetate Butylglycolacetate	112-07-2	-64	192	340	(CC) 71	1.414	0.9422	15	0.4hPa
DEGBE	2-(2-butoxyethoxy) ethanol	Diethylene glycol butyl ether Butoxydiglycol; Diglycol butyl ether	112-34-5	-68	230	204	(CC) 78	1.432	0.967	Fully miscible	0.057hPa
DEGBEA	2-(2-butoxyethoxy) ethanol acetate	Diethylene glycol butyl ether acetate Butyldiglycolacetate	124-17-4	-32	247	295	(OC) 116 (CC) 102	1.426	0.985	65	<0.013hPa
TEGBE	2-[2-(2-butoxyethoxy)ethoxy] ethanol	Triethylene glycol butyl ether	143-22-6	-35	255-295	203	(CC) 143	1.44	0.989	Fully miscible	<0.01hPa
EGHE	2-hexyloxyethanol	Ethylene glycol hexyl ether Hexylglycol	112-25-4	-45	208	220	(OC) 91	1.429	0.891	9	<0.1hPa
DEGHE	2-(2-hexyloxyethoxy) ethanol	Diethylene glycol (mono-n-)hexyl ether	112-59-4	-35	258.3		(OC) 133	1.437	0.937		<0.001hPa
PGME	1-methoxy-2-propanol	Propylene glycol methyl ether Methoxy(iso)propanol	107-98-2	-96	120	270	(CC) 32	1.402	0.919	Fully miscible	12hPa
PGMEA	1-methoxy-2-propanol acetate	Propylene glycol methyl ether acetate	108-65-6	<-66	146	315	(Seta) 45	1.402	0.96	160	3.7hPa
DPGME	(2-methoxymethylethoxy)propanol	Dipropylene glycol methyl ether	34590-94-8	-83	184-196	205	(CC) 85 (CC) 79	1.419	0.951	Fully miscible	1hPa
TPGME	[2-(2-methoxymethylethoxy) methylethoxy] propan	Tripropylene glycol methyl ether	25498-49-1	-78	243	270	(OC) 127 (CC) 116	1.428	0.965	Fully miscible	0.2hPa
PGEE	1-ethoxy-2-propanol	Proylene glycol ethyl ether	1569-02-4	-90	132	255	(OC) 54 (CC) 40	1.404	0.897	Fully miscible	10hPa

PGEEA	2-ethoxy-1-methylethyl acetate	Propylene glycol ethyl ether acetate	54839-24-6	-89	158		(CC) 55	1.442	0.941	Fully miscible	2.03hPa
DPGEE	2-ethoxymethylethoxy)-propanol	Ethoxypropoxypropanol	30025-38-8	<-50	188		(OC) 96	1.421	0.942	Fully miscible	56.67Pa
PGPE	1-propoxy-2-propanol	Propylene glycol monopropyl ether Propoxypropanol	30136-13-1	<-70	150		53		0.8886	Fully miscible	2.27hPa
DPGPE	1-(1-methyl-2-propoxy-ethoxy)-2-propanol	Dipropylene glycol -n-propyl ether	51730-94-0 29911-27-1	<-75	212		88	1.424		0.19	0.11hPa
PGPhE	1-phenoxy-2-propanol	Phenoxyisopropanol Dipropylene glycol phenyl ether	770-35-4	13	242.7	135	127	1.522	1.0622	10	0.05hPa
PGBE	1-butoxy-2-propanol	Propylene glycol butyl ether	5131-66-8 29387-86-8	<-75	170.2		(CC) 63	1.418	0.882	60	1.13hPa
PGnBEA	1-butoxypropyl acetate	Propylene glycol n-butyl ether acetate	85409-76-3	<-75	190	279	(CC) 77	1.411	0.92		0.5hPa
DPGBE	1-(2-butoxy-1methylethoxy)-2-propanol	DPnB, Dipropylene glycol butyl ether	29911-28-2 35884-42-5	<-75	229	189	(CCC) 111	1.427	0.91	50	0.08hPa
TPGBE	[(butoxymethylethoxy)methylethoxy]-1-propanol	TPnB, Tripropylene glycol-n-butyl ether	55934-93-5	<-75	274	186	(CC) 124	1	0.93	0.03	<0.01hPa
PGTBE	1-tert-butoxy-2-propanol	Propylene glycol -1-tert-butyl ether	57018-52-7	<-82	154		(CC) 44	1.4116	0.872	173	3.74hPa at 25°C
DPGTBE	[2-(1,1-dimethylethoxy)methylethoxy]-propanol	DPtB, Dipropylene glycol t-butyl ether	132739-31-2	<-25	213-219					165	41.1-43.7hPa at 25 °C
DPGDME	Propane, oxybis[methoxy-	Dipropylene glycol dimethyl ether	111109-77-4	<-71	175	165	(CC) 65	1.409	0.9	526	

The following products were withdrawn from products sold to the general public in 1994 under the blanket restriction that applies to all substances classified as category 2 reprotoxic substances.

EGME	2-methoxyethanol	Methyl glycol Ethylene glycol methyl ether	109-86-4	-85.1	124	285	(CC) 42	1.4	0.965	Fully miscible	6.2hPa
EGMEA	2-methoxyethanol acetate	Methyl glycol acetate Ethylene glycol methyl ether acetate	110-49-6	-65	145	394	(CC) 45	1.402	1.0074	Fully miscible	9.3hPa
EGDME	1,2-dimethoxyethan	Ethylene glycol dimethyl ether Dimethylglycol	110-71-4	-58 to -71	84	202	(CC) -2	1.3813	0.8501	Fully miscible	64hPa
DEGDME	bis (2-methoxyethyl) ether	Dimethyldiglycol Diethylene glycol dimethyl ether	111-96-6	-64	162		(CC) 67		0.9434	Fully miscible	2.27hPa
TEGDME	1,2-bis-(2-methoxyethoxy)-ethane	Triethylene glycol dimethyl ether Triglym	112-49-2	-40	210-230				0.986	Fully miscible	1.2hPa
EGEE	2-ethoxyethanol	Ethylene glycol ethyl ether	110-80-5	<-80	135-137	235	(CC) 43	1.406	0.931	Fully miscible	5hPa
EGEEA	2-ethoxyethanol acetate	Ethylene glycol ethyl ether acetate	111-15-9	-62	153-159	379	(CC) 52	1.403	0.974	235	2hPa

Main sources: Melting point, boiling point, density, solubility, vapour pressure: *The Toxicology of Glycol Ethers and its Relevance to Man (4th ed) Vol II*, Technical report 95, ECETOC, Brussels (2005)
Refractive index, autoignition, flash point: *Patty's Toxicology (5th ed)*, Chapters 86 & 87, ed Bingham et al (2001), Wiley & Sons
Autoignition, flash point: *Hazardous Substance's Database (HSDB)*

Other sources: *Directory of Solvents*, ed Whim, Blackie Academic & Professional (1996)

Notes: Flash point: OC = open cup, CC = closed cup