2-Propanol, 1,1'-oxybis-

Other names:	1,1'-Dimethyldiethylene glycol
	1,1'-Oxybis-2-propanol
	1,1'-Oxydi-2-propanol
	1,1'-Oxydipropan-2-ol
	2,2'-Dihydroxydipropyl ether
	2-Propanol, 1,1'-oxydi-
	3,3'-oxybispropanol
	4-Oxaheptane-2,6-diol
	4-oxa-1,7-heptanediol
	Bis(2-hydroxypropyl) ether
	Di-(2-hydroxypropyl)-ether
	Di-1,2-propylene glycol
	NSC 8688
	dipropylene glycol
	propanol, oxybis-
Inchi:	InChI=1S/C6H14O3/c1-5(7)3-9-4-6(2)8/h5-8H,3-4H2,1-2H3
InchiKey:	AZUXKVXMJOIAOF-UHFFFAOYSA-N
Formula:	C6H14O3
SMILES:	CC(O)COCC(C)O
Mol. weight [g/mol]:	134.17
CAS:	110-98-5

Physical Properties

Property code	Value	Unit	Source
gf	-383.88	kJ/mol	Joback Method
hf	-614.41	kJ/mol	Joback Method
hfus	13.61	kJ/mol	Joback Method
hvap	63.94	kJ/mol	Joback Method
log10ws	-0.17		Crippen Method
logp	-0.235		Crippen Method
mcvol	113.010	ml/mol	McGowan Method
pc	3853.09	kPa	Joback Method
rinpol	1039.00		NIST Webbook
rinpol	1009.00		NIST Webbook
rinpol	989.70		NIST Webbook
rinpol	1014.30		NIST Webbook
rinpol	1037.80		NIST Webbook

ripol	1817.00		NIST Webbook
tb	542.58	K	Joback Method
tc	705.59	K	Joback Method
tf	271.25	K	Joback Method
vc	0.415	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	326.35	J/mol×K	705.59	Joback Method
cpg	286.98	J/mol×K	569.75	Joback Method
cpg	295.49	J/mol×K	596.92	Joback Method
cpg	303.67	J/mol×K	624.08	Joback Method
cpg	311.54	J/mol×K	651.25	Joback Method
cpg	319.10	J/mol×K	678.42	Joback Method
cpg	278.16	J/mol×K	542.58	Joback Method
dvisc	0.1960058	Pa×s	271.25	Joback Method
dvisc	0.0181938	Pa×s	316.47	Joback Method
dvisc	0.0030600	Pa×s	361.69	Joback Method
dvisc	0.0007649	Pa×s	406.91	Joback Method
dvisc	0.0002523	Pa×s	452.14	Joback Method
dvisc	0.0000478	Pa×s	542.58	Joback Method
dvisc	0.0001018	Pa×s	497.36	Joback Method
tcondl	0.16	W/m×K	298.20	Density, Viscosity and Thermal Conductivity of Aqueous Solutions of Propylene Glycol, Dipropylene Glycol, and Tripropylene Glycol between 290 K and 460 K
tcondl	0.16	W/m×K	309.80	Density, Viscosity and Thermal Conductivity of Aqueous Solutions of Propylene Glycol, Dipropylene Glycol, and Tripropylene Glycol between 290 K and 460 K

tcondl	0.16	W/m×K	316.90	Density, Viscosity and Thermal Conductivity of Aqueous Solutions of Propylene Glycol, Dipropylene Glycol, and Tripropylene Glycol between 290 K and 460 K	
tcondl	0.16	W/m×K	347.40	Density, Viscosity and Thermal Conductivity of Aqueous Solutions of Propylene Glycol, Dipropylene Glycol, and Tripropylene Glycol between 290 K and 460 K	
tcondl	0.16	W/m×K	363.00	Density, Viscosity and Thermal Conductivity of Aqueous Solutions of Propylene Glycol, Dipropylene Glycol, and Tripropylene Glycol between 290 K and 460 K	
tcondl	0.15	W/m×K	377.60	Density, Viscosity and Thermal Conductivity of Aqueous Solutions of Propylene Glycol, Dipropylene Glycol, and Tripropylene Glycol between 290 K and 460 K	
tcondl	0.15	W/m×K	391.60	Density, Viscosity and Thermal Conductivity of Aqueous Solutions of Propylene Glycol, Dipropylene Glycol, and Tripropylene Glycol between 290 K and 460 K	

tcondl	0.15	W/m×K	405.70	Density, Viscosity and Thermal Conductivity of Aqueous Solutions of Propylene Glycol, Dipropylene Glycol, and Tripropylene Glycol between 290 K and 460 K
tcondl	0.15	W/m×K	420.60	Density, Viscosity and Thermal Conductivity of Aqueous Solutions of Propylene Glycol, Dipropylene Glycol, and Tripropylene Glycol between 290 K and 460 K
tcondl	0.15	W/m×K	435.10	Density, Viscosity and Thermal Conductivity of Aqueous Solutions of Propylene Glycol, Dipropylene Glycol, and Tripropylene Glycol between 290 K and 460 K

Sources

Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C110985&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Density and vapour pressure of mixed-solvent desiccant systems (propylene glycol or dipropylene glycol or tripropylene glycol + magnesium chloride + water): Liquid-Liquid Equilibria for Dipropylene Glycol + Hydrocarbon Binary Systems, and Dipropylene Glycol between 290 K and 460 K: Experimental Data and Regression:	https://www.doi.org/10.1016/j.jct.2014.08.005 https://www.doi.org/10.1021/je049960h https://www.doi.org/10.1021/je3009039

Legend

cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity

gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
rinpol:	Non-polar retention indices
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tcondl:	Liquid thermal conductivity
tf:	Normal melting (fusion) point
vc:	Critical Volume