Ethanol, 2-(pentyloxy)-

Other names:	2-(pentyloxy)ethanol
	2-hydroxyethyl pentyl ether
	2-pentoxyethanol
	ethanol, 2-pentyloxy-
	ethylene glycol monopentyl ether
	pentylglycol
Inchi:	InChI=1S/C7H16O2/c1-2-3-4-6-9-7-5-8/h8H,2-7H2,1H3
InchiKey:	QVQDALFNSIKMBH-UHFFFAOYSA-N
Formula:	C7H16O2
SMILES:	CCCCCOCCO
Mol. weight [g/mol]:	132.20
CAS:	6196-58-3

Physical Properties

Property code	Value	Unit	Source
gf	-233.76	kJ/mol	Joback Method
hf	-472.26	kJ/mol	Joback Method
hfus	19.16	kJ/mol	Joback Method
hvap	50.27	kJ/mol	Joback Method
log10ws	-1.10		Crippen Method
logp	1.185		Crippen Method
mcvol	121.230	ml/mol	McGowan Method
pc	3035.62	kPa	Joback Method
rinpol	1060.60		NIST Webbook
tb	474.16	K	Joback Method
tc	634.70	K	Joback Method
tf	251.70	K	Joback Method
vc	0.465	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	271.34	J/mol×K	474.16	Joback Method
cpg	281.77	J/mol×K	500.92	Joback Method

cpg	291.85	J/mol×K	527.67	Joback Method
cpg	301.60	J/mol×K	554.43	Joback Method
cpg	311.01	J/mol×K	581.19	Joback Method
cpg	320.10	J/mol×K	607.95	Joback Method
cpg	328.87	J/mol×K	634.70	Joback Method
dvisc	0.0300573	Pa×s	251.70	Joback Method
dvisc	0.0071642	Pa×s	288.78	Joback Method
dvisc	0.0023665	Pa×s	325.85	Joback Method
dvisc	0.0009802	Pa×s	362.93	Joback Method
dvisc	0.0004781	Pa×s	400.01	Joback Method
dvisc	0.0002634	Pa×s	437.08	Joback Method
dvisc	0.0001593	Pa×s	474.16	Joback Method

Sources

Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Mutual Solubility and Lower Critical Solution Temperature for Water + Glycol Ether Systems:	https://www.doi.org/10.1021/je049635u
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=C6196583&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point

vc: Critical Volume