propoxyethylene

Inchi: InChI=1S/C5H10O/c1-3-5-6-4-2/h4H,2-3,5H2,1H3
InchiKey: OVGRCEFMXPHEBL-UHFFFAOYSA-N
Formula: C5H10O
SMILES: C=COCCC
Mol. weight [g/mol]: 86.13

Physical Properties

Property code	Value	Unit	Source
gf	-25.94	kJ/mol	Joback Method
hf	-153.32	kJ/mol	Joback Method
hfus	8.61	kJ/mol	Joback Method
hvap	28.46	kJ/mol	Joback Method
log10ws	-1.35		Crippen Method
logp	1.556		Crippen Method
mcvol	82.880	ml/mol	McGowan Method
pc	3572.80	kPa	Joback Method
tb	332.90	K	Joback Method
tc	500.59	K	Joback Method
tf	166.58	K	Joback Method
vc	0.315	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	158.71	J/mol×K	416.74	Joback Method
cpg	180.14	J/mol×K	500.59	Joback Method
cpg	173.22	J/mol×K	472.64	Joback Method
cpg	166.08	J/mol×K	444.69	Joback Method
cpg	135.21	J/mol×K	332.90	Joback Method
cpg	143.28	J/mol×K	360.85	Joback Method
cpg	151.11	J/mol×K	388.80	Joback Method
dvisc	0.0004648	Pa×s	249.74	Joback Method
dvisc	0.0003324	Pa×s	277.46	Joback Method
dvisc	0.0002526	Pa×s	305.18	Joback Method

dvisc	0.0002010	Pa×s	332.90	Joback Method
dvisc	0.0024826	Pa×s	166.58	Joback Method
dvisc	0.0012110	Pa×s	194.30	Joback Method
dvisc	0.0007067	Pa×s	222.02	Joback Method
pvap	90.00	kPa	334.22	Isothermal Binary and Ternary VLE for the Mixtures of Propyl Vinyl Ether + Ethanol + Isooctane at 323.15 K and VE at 293.15 K
pvap	95.00	kPa	336.28	Isothermal Binary and Ternary VLE for the Mixtures of Propyl Vinyl Ether + Ethanol + Isooctane at 323.15 K and VE at 293.15 K
pvap	100.00	kPa	337.38	Isothermal Binary and Ternary VLE for the Mixtures of Propyl Vinyl Ether + Ethanol + Isooctane at 323.15 K and VE at 293.15 K
pvap	101.70	kPa	337.90	Isothermal Binary and Ternary VLE for the Mixtures of Propyl Vinyl Ether + Ethanol + Isooctane at 323.15 K and VE at 293.15 K
pvap	20.00	kPa	296.02	Isothermal Binary and Ternary VLE for the Mixtures of Propyl Vinyl Ether + Ethanol + Isooctane at 323.15 K and VE at 293.15 K
pvap	25.00	kPa	301.62	Isothermal Binary and Ternary VLE for the Mixtures of Propyl Vinyl Ether + Ethanol + Isooctane at 323.15 K and VE at 293.15 K
pvap	30.00	kPa	305.44	Isothermal Binary and Ternary VLE for the Mixtures of Propyl Vinyl Ether + Ethanol + Isooctane at 323.15 K and VE at 293.15 K

pvap	35.00	kPa	309.37	Isothermal Binary and Ternary VLE for the Mixtures of Propyl Vinyl Ether + Ethanol + Isooctane at 323.15 K and VE at 293.15 K
pvap	40.00	kPa	312.65	Isothermal Binary and Ternary VLE for the Mixtures of Propyl Vinyl Ether + Ethanol + Isooctane at 323.15 K and VE at 293.15 K
pvap	45.00	kPa	315.13	Isothermal Binary and Ternary VLE for the Mixtures of Propyl Vinyl Ether + Ethanol + Isooctane at 323.15 K and VE at 293.15 K
pvap	50.00	kPa	317.88	Isothermal Binary and Ternary VLE for the Mixtures of Propyl Vinyl Ether + Ethanol + Isooctane at 323.15 K and VE at 293.15 K
pvap	55.00	kPa	320.29	Isothermal Binary and Ternary VLE for the Mixtures of Propyl Vinyl Ether + Ethanol + Isooctane at 323.15 K and VE at 293.15 K
pvap	60.00	kPa	322.72	Isothermal Binary and Ternary VLE for the Mixtures of Propyl Vinyl Ether + Ethanol + Isooctane at 323.15 K and VE at 293.15 K
pvap	65.00	kPa	324.90	Isothermal Binary and Ternary VLE for the Mixtures of Propyl Vinyl Ether + Ethanol + Isooctane at 323.15 K and VE at 293.15 K

pvap	70.00	kPa	326.95	Isothermal Binary and Ternary VLE for the Mixtures of Propyl Vinyl Ether + Ethanol + Isooctane at 323.15 K and VE at 293.15 K
pvap	75.00	kPa	328.89	Isothermal Binary and Ternary VLE for the Mixtures of Propyl Vinyl Ether + Ethanol + Isooctane at 323.15 K and VE at 293.15 K
pvap	80.00	kPa	330.76	Isothermal Binary and Ternary VLE for the Mixtures of Propyl Vinyl Ether + Ethanol + Isooctane at 323.15 K and VE at 293.15 K
pvap	85.00	kPa	332.86	Isothermal Binary and Ternary VLE for the Mixtures of Propyl Vinyl Ether + Ethanol + Isooctane at 323.15 K and VE at 293.15 K
rfi	1.39094 ± 0.00005		298.15	Binary LLE for Propyl Vinyl Ether (PVE) + Water, Ternary LLE for PVE + Methanol or Ethanol + Water at 298.15 K, and VE and centsR at 293.15 K for the Mixture of PVE + Ethanol + 2,2,4-Trimethylpentane
rhol	762.69 ± 0.01	kg/m3	298.15	Binary and Ternary Vapor-Liquid Equilibrium at 323.15 K and Excess Molar Volumes at 298.15 K for the Mixtures of Propyl Vinyl Ether + 1-Propanol + Toluene

rhol	762.96	kg/m3	298.15	Liquid Liquid Equilibrium for Ternary Systems of Propyl Vinyl Ether + C3 or C4 Alcohols + Water at 298.15 K and Excess Molar Enthalpies for Ternary and Constituent Binary Systems of Propyl Vinyl Ether + Ethanol + Isooctane at 303.15 K
rhol	762.98 ± 0.01	kg/m3	298.15	Binary LLE for Propyl Vinyl Ether (PVE) + Water, Ternary LLE for PVE + Methanol or Ethanol + Water at 298.15 K, and VE and centsR at 293.15 K for the Mixture of PVE + Ethanol + 2,2,4-Trimethylpentane
rhol	768.97 ± 0.01	kg/m3	293.15	Isothermal Binary and Ternary VLE for the Mixtures of Propyl Vinyl Ether + Ethanol + Isooctane at 323.15 K and VE at 293.15 K

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Isothermal Binary and Ternary VLE for the Mixtures of Propyl Vinyl Ether + Ethanol + Isooctane at 323.15 K and VE at 293.15 K:	https://www.doi.org/10.1021/je700094y
Binary LLE for Propyl Vinyl Ether (PVE) + Water, Ternary LLE for PVE + Methanol or Ethanol + Water at 298.15 K, and VE and centsR at 293.15 K for the Mixture of PVE + Ethanol + 2,2,4-Trimethylpentane:	https://www.doi.org/10.1021/je7003512
Liquid Liquid Equilibrium for Ternary Systems of Propyl Vinyl Ether + C3 or C4 Alcohols + Water at 298.15 K and Excess Molar Enthalpies for Ternary and Constituent Binary Systems of Propyl Vinyl Ether + Ethanol + Isooctane at 303.15 K:	https://www.doi.org/10.1021/je7005743
Joback Method:	https://www.doi.org/10.1021/je800972b
Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

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
pvap:	Vapor pressure
rfi:	Refractive Index
rhol:	Liquid Density
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume