Ethyl-1-propenyl ether

Other names:	1-Ethoxy-1-propene
	1-Ethoxyprop-1-ene
	1-Ethoxypropene
	1-Propene, 1-ethoxy-
	C2H5OCH=CHCH3
	Ether, ethyl propenyl
	Ethyl propenyl ether
	Propenyl ethyl ether
Inchi:	InChI=1S/C5H10O/c1-3-5-6-4-2/h3,5H,4H2,1-2H3
InchiKey:	XDHOEHJVXXTEDV-UHFFFAOYSA-N
Formula:	C5H10O
SMILES:	CC=COCC
Mol. weight [g/mol]:	86.13
CAS:	928-55-2

Physical Properties

Property code	Value	Unit	Source
affp	876.60	kJ/mol	NIST Webbook
basg	847.70	kJ/mol	NIST Webbook
gf	-33.56	kJ/mol	Joback Method
hf	-161.53	kJ/mol	Joback Method
hfus	10.10	kJ/mol	Joback Method
hvap	29.09	kJ/mol	Joback Method
log10ws	-1.35		Crippen Method
logp	1.556		Crippen Method
mcvol	82.880	ml/mol	McGowan Method
pc	3615.89	kPa	Joback Method
rinpol	706.00		NIST Webbook
tb	340.38	K	Joback Method
tc	513.77	K	Joback Method
tf	163.26	K	Joback Method
vc	0.314	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	133.95	J/mol×K	340.38	Joback Method
cpg	173.60	J/mol×K	484.87	Joback Method
cpg	166.23	J/mol×K	455.97	Joback Method
cpg	158.59	J/mol×K	427.07	Joback Method
cpg	150.67	J/mol×K	398.18	Joback Method
cpg	142.46	J/mol×K	369.28	Joback Method
cpg	180.69	J/mol×K	513.77	Joback Method
dvisc	0.0001718	Pa×s	340.38	Joback Method
dvisc	0.0002196	Pa×s	310.86	Joback Method
dvisc	0.0002955	Pa×s	281.34	Joback Method
dvisc	0.0004264	Pa×s	251.82	Joback Method
dvisc	0.0006780	Pa×s	222.30	Joback Method
dvisc	0.0012426	Pa×s	192.78	Joback Method
dvisc	0.0028355	Pa×s	163.26	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.55860e+01
Coeff. B	-3.34994e+03
Coeff. C	-3.65460e+01
Temperature range (K), min.	255.52
Temperature range (K), max.	362.59

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C928552&Units=SI

The Yaws Handbook of Vapor Pressure: https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws

Joback Method: https://en.wikipedia.org/wiki/Joback_method

Legend

affp:	Proton affinity
basg:	Gas basicity
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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume