2-Propenoic acid, 2-hydroxyethyl ester

Other names:	2-(ACRYLOYLOXY)ETHANOL
	2-Hydroxyethyl acrylate
	2-Hydroxyethylester kyseliny akrylove
	Acrylic acid, 2-hydroxyethyl ester
	Bisomer 2HEA
	ETHYLENE GLYCOL MONOACRYLATE
	Ethylene glycol, acrylate
	Hydroxyethyl acrylate
	«beta»-Hydroxyethyl acrylate
	Â«betaÂ»-Hydroxyethyl acrylate
Inchi:	InChI=1S/C5H8O3/c1-2-5(7)8-4-3-6/h2,6H,1,3-4H2
InchiKey:	OMIGHNLMNHATMP-UHFFFAOYSA-N
Formula:	C5H8O3
SMILES:	C=CC(=O)OCCO
Mol. weight [g/mol]:	116.12
CAS:	818-61-1

Physical Properties

Property code	Value	Unit	Source
gf	-291.68	kJ/mol	Joback Method
hf	-418.13	kJ/mol	Joback Method
hfus	14.30	kJ/mol	Joback Method
hvap	51.89	kJ/mol	Joback Method
log10ws	0.10		Crippen Method
logp	-0.292		Crippen Method
mcvol	90.320	ml/mol	McGowan Method
pc	4339.67	kPa	Joback Method
tb	478.95	K	Joback Method
tc	654.50	K	Joback Method
tf	277.33	K	Joback Method
vc	0.340	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	187.72	J/mol×K	478.95	Joback Method
cpg	220.29	J/mol×K	625.24	Joback Method
cpg	214.30	J/mol×K	595.99	Joback Method
cpg	208.04	J/mol×K	566.73	Joback Method
cpg	201.53	J/mol×K	537.47	Joback Method
cpg	194.76	J/mol×K	508.21	Joback Method
cpg	226.03	J/mol×K	654.50	Joback Method
dvisc	0.0001907	Pa×s	478.95	Joback Method
dvisc	0.0002965	Pa×s	445.35	Joback Method
dvisc	0.0004957	Pa×s	411.74	Joback Method
dvisc	0.0009080	Pa×s	378.14	Joback Method
dvisc	0.0018714	Pa×s	344.54	Joback Method
dvisc	0.0045095	Pa×s	310.93	Joback Method
dvisc	0.0134484	Pa×s	277.33	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	364.20	K	1.60	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	2.91322e+01
Coeff. B	-9.38390e+03
Coeff. C	-4.74950e+01
Temperature range (K), min.	372.82
Temperature range (K), max.	441.43

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/T + C*ln(T) + D*T^2
Coeff. A	8.48790e+01

Coeff. B	-1.06316e+04
Coeff. C	-9.56519e+00
Coeff. D	3.59596e-06
Temperature range (K), min.	213.00
Temperature range (K), max.	662.00

Sources

Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method
KDB:	https://www.cheric.org/files/research/kdb/mol/mol1173.mol
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C818611&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
KDB Vapor Pressure Data:	https://www.cheric.org/research/kdb/hcprop/showprop.php?cmpid=1173
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
pvap:	Vapor pressure
tb:	Normal Boiling Point Temperature
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume