4-Hydroxybutyl acrylate

Other names:	2-Propenoic acid, 4-hydroxybutyl ester
	1,4-Butanediol monoacrylate
	Butanediol monoacrylate
Inchi:	InChI=1S/C7H12O3/c1-2-7(9)10-6-4-3-5-8/h2,8H,1,3-6H2
InchiKey:	NDWUBGAGUCISDV-UHFFFAOYSA-N
Formula:	C7H12O3
SMILES:	C=CC(=O)OCCCCO
Mol. weight [g/mol]:	144.17
CAS:	2478-10-6

Physical Properties

Property code	Value	Unit	Source
gf	-274.84	kJ/mol	Joback Method
hf	-459.41	kJ/mol	Joback Method
hfus	19.48	kJ/mol	Joback Method
hvap	56.34	kJ/mol	Joback Method
log10ws	-0.73		Crippen Method
logp	0.488		Crippen Method
mcvol	118.500	ml/mol	McGowan Method
pc	3419.86	kPa	Joback Method
rinpol	1182.00		NIST Webbook
rinpol	1182.00		NIST Webbook
rinpol	1182.00		NIST Webbook
tb	524.71	K	Joback Method
tc	697.39	K	Joback Method
tf	299.87	K	Joback Method
vc	0.452	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	269.97	J/mol×K	524.71	Joback Method
cpg	279.18	J/mol×K	553.49	Joback Method
cpg	288.02	J/mol×K	582.27	Joback Method

cpg	296.50	J/mol×K	611.05	Joback Method
cpg	304.62	J/mol×K	639.83	Joback Method
cpg	312.39	J/mol×K	668.61	Joback Method
cpg	319.82	J/mol×K	697.39	Joback Method
dvisc	0.0098287	Pa×s	299.87	Joback Method
dvisc	0.0032441	Pa×s	337.34	Joback Method
dvisc	0.0013365	Pa×s	374.82	Joback Method
dvisc	0.0006469	Pa×s	412.29	Joback Method
dvisc	0.0003534	Pa×s	449.76	Joback Method
dvisc	0.0002118	Pa×s	487.24	Joback Method
dvisc	0.0001366	Pa×s	524.71	Joback Method

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C2478106&Units=SI
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

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