2-hydroxypropyl acrylate

Inchi: InChI=1S/C6H10O3/c1-3-6(8)9-4-5(2)7/h3,5,7H,1,4H2,2H3
InchiKey: GWZMWHWAWHPNHN-UHFFFAOYSA-N
Formula: C6H10O3
SMILES: C=CC(=O)OCC(C)O
Mol. weight [g/mol]: 130.14

Physical Properties

Property code	Value	Unit	Source
af	0.6439		Cheméo Relay (1.0)
hf	-562.11	kJ/mol	Cheméo Relay (1.0)
hfus	13.37	kJ/mol	Joback Method
hvap	59.59	kJ/mol	Cheméo Relay (1.0)
ie	10.45	eV	Cheméo Relay (1.0)
log10ws	0.30		Cheméo Relay (1.0)
logp	0.096		Crippen Method
mcvol	104.410	ml/mol	McGowan Method
pc	3877.12	kPa	Joback Method
tb	449.68	K	Cheméo Relay (1.0)
tc	634.59	K	Cheméo Relay (1.0)
tf	273.71	K	Cheméo Relay (1.0)
vc	0.388	m3/kmol	Cheméo Relay (1.0)

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	228.11	J/mol×K	501.39	Joback Method
cpg	236.52	J/mol×K	530.99	Joback Method
cpg	244.59	J/mol×K	560.60	Joback Method
cpg	252.33	J/mol×K	590.20	Joback Method
cpg	259.74	J/mol×K	619.81	Joback Method
cpg	266.82	J/mol×K	649.41	Joback Method
cpg	273.58	J/mol×K	679.02	Joback Method
dvisc	0.0200881	Pa×s	273.60	Joback Method
dvisc	0.0054334	Pa×s	311.56	Joback Method

dvisc	0.0019524	Pa×s	349.53	Joback Method
dvisc	0.0008573	Pa×s	387.50	Joback Method
dvisc	0.0004360	Pa×s	425.46	Joback Method
dvisc	0.0002478	Pa×s	463.43	Joback Method
dvisc	0.0001534	Pa×s	501.39	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Cheméo Relay (1.0):	
Cheméo Relay (1.0, beta):	
High pressure phase behaviour of the binary mixture for the 2-hydroxyethyl methacrylate, 2-hydroxypropyl acrylate, and 2-hydroxypropyl methacrylate in supercritical carbon dioxide:	https://www.doi.org/10.1016/j.jct.2006.11.010
Joback Method:	https://en.wikipedia.org/wiki/Joback_method

Legend

af:	Acentric Factor
cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume