2-Hydroxy-cyclopentanecarboxylic acid ethyl ester, trans

Inchi: InChI=1S/C8H14O3/c1-2-11-8(10)6-4-3-5-7(6)9/h6-7,9H,2-5H2,1H3/t6-,7-/m0/s1
InchiKey: IIFIGGNBUOZGAB-BQBZGAKWSA-N
Formula: C8H14O3
SMILES: CCOC(=O)C1CCCC1O
Mol. weight [g/mol]: 158.19

Physical Properties

Property code	Value	Unit	Source
gf	-325.42	kJ/mol	Joback Method
hf	-565.34	kJ/mol	Joback Method
hfus	18.36	kJ/mol	Joback Method
hvap	59.19	kJ/mol	Joback Method
log10ws	-1.06		Crippen Method
logp	0.710		Crippen Method
mcvol	126.030	ml/mol	McGowan Method
pc	3456.14	kPa	Joback Method
rinpol	1106.00		NIST Webbook
rinpol	1180.00		NIST Webbook
tb	561.52	K	Joback Method
tc	752.76	K	Joback Method
tf	319.56	K	Joback Method
vc	0.467	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	321.27	J/mol×K	561.52	Joback Method
cpg	380.30	J/mol×K	720.89	Joback Method
cpg	369.73	J/mol×K	689.02	Joback Method
cpg	358.54	J/mol×K	657.14	Joback Method
cpg	346.74	J/mol×K	625.27	Joback Method
cpg	334.32	J/mol×K	593.39	Joback Method
cpg	390.28	J/mol×K	752.76	Joback Method
dvisc	0.0001619	Pa×s	561.52	Joback Method

dvisc	0.0002387	Pa×s	521.19	Joback Method
dvisc	0.0003754	Pa×s	480.87	Joback Method
dvisc	0.0006415	Pa×s	440.54	Joback Method
dvisc	0.0012212	Pa×s	400.21	Joback Method
dvisc	0.0026857	Pa×s	359.89	Joback Method
dvisc	0.0072063	Pa×s	319.56	Joback Method

Sources

Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R136739&Units=SI
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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume