E-11-Tetradecenoic acid

Inchi: InChI=1S/C14H26O2/c1-2-3-4-5-6-7-8-9-10-11-12-13-14(15)16/h3-4H,2,5-13H2,1H3,(H,
InchiKey: FWWOMPFHMRPXIH-ONEGZZNKSA-N
Formula: C14H26O2
SMILES: CCC=CCCCCCCCCCC(=O)O
Mol. weight [g/mol]: 226.35

Physical Properties

Property code	Value	Unit	Source
gf	-118.52	kJ/mol	Joback Method
hf	-479.88	kJ/mol	Joback Method
hfus	37.90	kJ/mol	Joback Method
hvap	70.14	kJ/mol	Joback Method
log10ws	-4.64		Crippen Method
logp	4.548		Crippen Method
mcvol	211.260	ml/mol	McGowan Method
pc	1803.09	kPa	Joback Method
ripol	2537.00		NIST Webbook
ripol	2537.00		NIST Webbook
tb	669.93	K	Joback Method
tc	840.79	K	Joback Method
tf	353.21	K	Joback Method
vc	0.825	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	586.83	J/mol×K	669.93	Joback Method
cpg	601.22	J/mol×K	698.41	Joback Method
cpg	614.96	J/mol×K	726.88	Joback Method
cpg	628.06	J/mol×K	755.36	Joback Method
cpg	640.56	J/mol×K	783.84	Joback Method
cpg	652.48	J/mol×K	812.32	Joback Method
cpg	663.86	J/mol×K	840.79	Joback Method
dvisc	0.0051406	Pa×s	353.21	Joback Method

dvisc	0.0013810	Pa×s	406.00	Joback Method
dvisc	0.0005020	Pa×s	458.78	Joback Method
dvisc	0.0002249	Pa×s	511.57	Joback Method
dvisc	0.0001171	Pa×s	564.36	Joback Method
dvisc	0.0000681	Pa×s	617.14	Joback Method
dvisc	0.0000432	Pa×s	669.93	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U130962&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
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume