Propanoic acid, tetradecyl ester

Other names: 1-Tetradecanol, propanoate
Tetradecyl propionate
Inchi: InChI=1S/C17H34O2/c1-3-5-6-7-8-9-10-11-12-13-14-15-16-19-17(18)4-2/h3-16H2,1-2H3
InchiKey: YRZGMTHQPGNLEK-UHFFFAOYSA-N
Formula: C17H34O2
SMILES: CCCCCCCCCCCCCCCOC(=O)CC
Mol. weight [g/mol]: 270.45
CAS: 6221-95-0

Physical Properties

Property code	Value	Unit	Source
gf	-141.66	kJ/mol	Joback Method
hf	-639.01	kJ/mol	Joback Method
hfus	42.57	kJ/mol	Joback Method
hvap	62.59	kJ/mol	Joback Method
log10ws	-5.80		Crippen Method
logp	5.641		Crippen Method
mcvol	257.830	ml/mol	McGowan Method
pc	1271.87	kPa	Joback Method
rinpol	1888.00		NIST Webbook
rinpol	1880.00		NIST Webbook
rinpol	1883.00		NIST Webbook
rinpol	1881.00		NIST Webbook
rinpol	1877.00		NIST Webbook
rinpol	1878.00		NIST Webbook
rinpol	1884.00		NIST Webbook
rinpol	1873.00		NIST Webbook
rinpol	1888.00		NIST Webbook
rinpol	1880.00		NIST Webbook
rinpol	1884.00		NIST Webbook
ripol	2178.00		NIST Webbook
ripol	2178.00		NIST Webbook
ripol	2153.00		NIST Webbook
ripol	2177.00		NIST Webbook
ripol	2153.00		NIST Webbook
ripol	2154.00		NIST Webbook
ripol	2165.00		NIST Webbook

ripol	2165.00		NIST Webbook
tb	664.65	K	Joback Method
tc	832.26	K	Joback Method
tf	353.51	K	Joback Method
vc	1.012	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	732.28	J/mol×K	664.65	Joback Method
cpg	750.62	J/mol×K	692.59	Joback Method
cpg	768.17	J/mol×K	720.52	Joback Method
cpg	784.95	J/mol×K	748.46	Joback Method
cpg	800.97	J/mol×K	776.39	Joback Method
cpg	816.25	J/mol×K	804.33	Joback Method
cpg	830.80	J/mol×K	832.26	Joback Method
dvisc	0.0022120	Pa×s	353.51	Joback Method
dvisc	0.0009695	Pa×s	405.37	Joback Method
dvisc	0.0005124	Pa×s	457.22	Joback Method
dvisc	0.0003083	Pa×s	509.08	Joback Method
dvisc	0.0002038	Pa×s	560.94	Joback Method
dvisc	0.0001445	Pa×s	612.79	Joback Method
dvisc	0.0001081	Pa×s	664.65	Joback Method

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C6221950&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
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume