2-Propenoic acid, 2-methyl-, tetradecyl ester

Other names:	Tetradecyl methacrylate
	Methacrylic acid, tetradecyl ester
Inchi:	InChI=1S/C18H34O2/c1-4-5-6-7-8-9-10-11-12-13-14-15-16-20-18(19)17(2)3/h2,4-16H2,1
InchiKey:	ATZHWSYYKQKSSY-UHFFFAOYSA-N
Formula:	C18H34O2
SMILES:	C=C(C)C(=O)OCCCCCCCCCCCCCC
Mol. weight [g/mol]:	282.46
CAS:	2549-53-3

Physical Properties

Property code	Value	Unit	Source
gf	-53.95	kJ/mol	Joback Method
hf	-544.01	kJ/mol	Joback Method
hfus	42.57	kJ/mol	Joback Method
hvap	64.23	kJ/mol	Joback Method
log10ws	-6.07		Crippen Method
logp	5.807		Crippen Method
mcvol	267.620	ml/mol	McGowan Method
pc	1228.56	kPa	Joback Method
rinpol	1958.00		NIST Webbook
rinpol	1976.00		NIST Webbook
rinpol	1976.00		NIST Webbook
rinpol	1958.00		NIST Webbook
ripol	2045.00		NIST Webbook
ripol	2045.00		NIST Webbook
tb	684.09	K	Joback Method
tc	855.44	K	Joback Method
tf	349.06	K	Joback Method
vc	1.050	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	849.55	J/mol×K	826.88	Joback Method

cpg	765.48	J/mol×K	684.09	Joback Method
cpg	783.92	J/mol×K	712.65	Joback Method
cpg	801.53	J/mol×K	741.21	Joback Method
cpg	818.32	J/mol×K	769.76	Joback Method
cpg	834.32	J/mol×K	798.32	Joback Method
cpg	864.04	J/mol×K	855.44	Joback Method
hvapt	69.10	kJ/mol	537.00	NIST Webbook

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=C2549533&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

cpg:	Ideal gas heat capacity
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
hvapt:	Enthalpy of vaporization at a given temperature
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

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