Tetradecyl formate

Inchi: InChI=1S/C15H30O2/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-17-15-16/h15H,2-14H2,1H3
InchiKey: SJBKZSQQFOWRQX-UHFFFAOYSA-N
Formula: C15H30O2
SMILES: CCCCCCCCCCCCCCOC=O
Mol. weight [g/mol]: 242.40
CAS: 5451-63-8

Physical Properties

Property code	Value	Unit	Source
gf	-129.10	kJ/mol	Joback Method
hf	-570.73	kJ/mol	Joback Method
hfus	38.08	kJ/mol	Joback Method
hvap	58.11	kJ/mol	Joback Method
log10ws	-4.96		Crippen Method
logp	4.861		Crippen Method
mcvol	229.650	ml/mol	McGowan Method
pc	1478.15	kPa	Joback Method
rinpol	1710.00		NIST Webbook
rinpol	1710.00		NIST Webbook
tb	613.68	K	Joback Method
tc	778.21	K	Joback Method
tf	323.04	K	Joback Method
vc	0.910	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	620.17	J/mol×K	613.68	Joback Method
cpg	698.98	J/mol×K	750.79	Joback Method
cpg	684.56	J/mol×K	723.36	Joback Method
cpg	669.47	J/mol×K	695.94	Joback Method
cpg	653.72	J/mol×K	668.52	Joback Method
cpg	637.29	J/mol×K	641.10	Joback Method
cpg	712.77	J/mol×K	778.21	Joback Method

dvisc	0.0001513	Pa×s	613.68	Joback Method
dvisc	0.0002011	Pa×s	565.24	Joback Method
dvisc	0.0002820	Pa×s	516.80	Joback Method
dvisc	0.0004239	Pa×s	468.36	Joback Method
dvisc	0.0007002	Pa×s	419.92	Joback Method
dvisc	0.0013183	Pa×s	371.48	Joback Method
dvisc	0.0030006	Pa×s	323.04	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	2.07562e+01
Coeff. B	-7.25030e+03
Coeff. C	-1.09104e+02
Temperature range (K), min.	463.32
Temperature range (K), max.	578.54

Sources

The Yaws Handbook of Vapor Pressure: https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
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
McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=R543825&Units=SI

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
pvap:	Vapor pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume