2-Tetradecanol

Other names:	Tetradecanol-2
	sec-Tetradecyl alcohol
	tetradecan-2-ol
Inchi:	InChI=1S/C14H30O/c1-3-4-5-6-7-8-9-10-11-12-13-14(2)15/h14-15H,3-13H2,1-2H3
InchiKey:	BRGJIIMZXMWMCC-UHFFFAOYSA-N
Formula:	C14H30O
SMILES:	CCCCCCCCCCCCC(C)O
Mol. weight [g/mol]:	214.39
CAS:	4706-81-4

Physical Properties

Property code	Value	Unit	Source
gf	-72.26	kJ/mol	Joback Method
hf	-489.80	kJ/mol	Joback Method
hfus	32.58	kJ/mol	Joback Method
hvap	63.05	kJ/mol	Joback Method
log10ws	-5.06		Crippen Method
logp	4.678		Crippen Method
mcvol	213.990	ml/mol	McGowan Method
pc	1649.77	kPa	Joback Method
rinpol	1611.00		NIST Webbook
rinpol	1611.00		NIST Webbook
rinpol	1575.00		NIST Webbook
ripol	2033.00		NIST Webbook
ripol	2033.00		NIST Webbook
ripol	2013.00		NIST Webbook
ripol	2005.00		NIST Webbook
tb	611.46	K	Joback Method
tc	771.56	K	Joback Method
tf	293.36	K	Joback Method
vc	0.833	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	670.12	J/mol×K	771.56	Joback Method
cpg	583.00	J/mol×K	611.46	Joback Method
cpg	599.08	J/mol×K	638.14	Joback Method
cpg	614.51	J/mol×K	664.83	Joback Method
cpg	629.31	J/mol×K	691.51	Joback Method
cpg	643.50	J/mol×K	718.19	Joback Method
cpg	657.10	J/mol×K	744.87	Joback Method
dvisc	0.0000558	Pa×s	611.46	Joback Method
dvisc	0.0226239	Pa×s	293.36	Joback Method
dvisc	0.0038664	Pa×s	346.38	Joback Method
dvisc	0.0010562	Pa×s	399.39	Joback Method
dvisc	0.0003911	Pa×s	452.41	Joback Method
dvisc	0.0001784	Pa×s	505.43	Joback Method
dvisc	0.0000944	Pa×s	558.44	Joback Method
hvapt	95.70	kJ/mol	370.50	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.62855e+01
Coeff. B	-5.38620e+03
Coeff. C	-9.60380e+01
Temperature range (K), min.	432.72
Temperature range (K), max.	586.85

Sources

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=C4706814&Units=SI

The Yaws Handbook of Vapor Pressure: https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

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
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
pvap:	Vapor 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