

1,2-Tetradecanediol

Other names:	Tetradecane-1,2-diol
Inchi:	InChI=1S/C14H30O2/c1-2-3-4-5-6-7-8-9-10-11-12-14(16)13-15/h14-16H,2-13H2,1H3
InchiKey:	DWANEFRJKWXRSG-UHFFFAOYSA-N
Formula:	C14H30O2
SMILES:	CCCCCCCCCCCCC(O)CO
Mol. weight [g/mol]:	230.39
CAS:	21129-09-9

Physical Properties

Property code	Value	Unit	Source
gf	-209.08	kJ/mol	Joback Method
hf	-642.03	kJ/mol	Joback Method
hfus	36.67	kJ/mol	Joback Method
hvap	79.73	kJ/mol	Joback Method
log10ws	-4.32		Crippen Method
logp	3.651		Crippen Method
mcvol	219.860	ml/mol	McGowan Method
pc	1780.34	kPa	Joback Method
rinpol	1826.00		NIST Webbook
rinpol	1826.00		NIST Webbook
tb	703.64	K	Joback Method
tc	867.75	K	Joback Method
tf	341.40 ± 0.30	K	NIST Webbook
vc	0.852	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	653.40	J/mol×K	703.64	Joback Method
cpg	719.40	J/mol×K	840.40	Joback Method
cpg	707.37	J/mol×K	813.05	Joback Method
cpg	694.77	J/mol×K	785.70	Joback Method
cpg	681.60	J/mol×K	758.34	Joback Method
cpg	667.81	J/mol×K	730.99	Joback Method

cpg	730.88	J/mol×K	867.75	Joback Method
dvisc	0.0000097	Pa×s	703.64	Joback Method
dvisc	0.0000187	Pa×s	645.40	Joback Method
dvisc	0.0000411	Pa×s	587.15	Joback Method
dvisc	0.0001070	Pa×s	528.91	Joback Method
dvisc	0.0003532	Pa×s	470.67	Joback Method
dvisc	0.0016343	Pa×s	412.42	Joback Method
dvisc	0.0125163	Pa×s	354.18	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	2.12424e+01
Coeff. B	-7.62392e+03
Coeff. C	-1.10494e+02
Temperature range (K), min.	474.32
Temperature range (K), max.	589.05

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=C21129099&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
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

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