

3-Pentadecanol

Inchi:	InChI=1S/C15H32O/c1-3-5-6-7-8-9-10-11-12-13-14-15(16)4-2/h15-16H,3-14H2,1-2H3
InchiKey:	WVZVEGVDRAOXNT-UHFFFAOYSA-N
Formula:	C15H32O
SMILES:	CCCCCCCCCCCC(O)CC
Mol. weight [g/mol]:	228.41
CAS:	53346-71-7

Physical Properties

Property code	Value	Unit	Source
gf	-63.84	kJ/mol	Joback Method
hf	-510.44	kJ/mol	Joback Method
hfus	35.17	kJ/mol	Joback Method
hvap	65.27	kJ/mol	Joback Method
log10ws	-5.48		Crippen Method
logp	5.068		Crippen Method
mvol	228.080	ml/mol	McGowan Method
pc	1528.27	kPa	Joback Method
tb	634.34	K	Joback Method
tc	794.88	K	Joback Method
tf	304.63	K	Joback Method
vc	0.888	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	637.33	J/molxK	634.34	Joback Method
cpg	653.95	J/molxK	661.10	Joback Method
cpg	669.89	J/molxK	687.85	Joback Method
cpg	685.17	J/molxK	714.61	Joback Method
cpg	699.82	J/molxK	741.36	Joback Method
cpg	713.84	J/molxK	768.12	Joback Method
cpg	727.26	J/molxK	794.88	Joback Method
dvisc	0.0175571	Paxs	304.63	Joback Method
dvisc	0.0030635	Paxs	359.58	Joback Method

dvisc	0.0008492	Paxs	414.53	Joback Method
dvisc	0.0003179	Paxs	469.49	Joback Method
dvisc	0.0001462	Paxs	524.44	Joback Method
dvisc	0.0000779	Paxs	579.39	Joback Method
dvisc	0.0000463	Paxs	634.34	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.54497e+01
Coeff. B	-5.15231e+03
Coeff. C	-9.77060e+01
Temperature range (K), min.	437.52
Temperature range (K), max.	605.91

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C53346717&Units=SI
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

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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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