3-Hexadecanol, 3,7,11,15-tetramethyl-

Other names: 3,7,11,15-tetramethylhexadecan-3-ol
Inchi: InChI=1S/C20H42O/c1-7-20(6,21)16-10-15-19(5)14-9-13-18(4)12-8-11-17(2)3/h17-19,21
InchiKey: CVPIIXFZNPKANT-UHFFFAOYSA-N
Formula: C20H42O
SMILES: CCC(C)(O)CCCC(C)CCCC(C)CCCC(C)C
Mol. weight [g/mol]: 298.55
CAS: 85761-30-4

Physical Properties

Property code	Value	Unit	Source
gf	-23.78	kJ/mol	Joback Method
hf	-632.95	kJ/mol	Joback Method
hfus	33.66	kJ/mol	Joback Method
hvap	74.33	kJ/mol	Joback Method
log10ws	-6.84		Crippen Method
logp	6.587		Crippen Method
mcvol	298.530	ml/mol	McGowan Method
pc	1108.89	kPa	Joback Method
rinpol	1974.00		NIST Webbook
rinpol	1974.00		NIST Webbook
ripol	2190.00		NIST Webbook
ripol	2190.00		NIST Webbook
tb	744.63	K	Joback Method
tc	918.64	K	Joback Method
tf	333.40	K	Joback Method
vc	1.145	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	929.61	J/mol×K	744.63	Joback Method
cpg	949.19	J/mol×K	773.63	Joback Method
cpg	967.81	J/mol×K	802.63	Joback Method
cpg	985.54	J/mol×K	831.63	Joback Method

cpg	1002.40	J/mol×K	860.63	Joback Method
cpg	1018.45	J/mol×K	889.64	Joback Method
cpg	1033.74	J/mol×K	918.64	Joback Method
dvisc	0.0150419	Pa×s	333.40	Joback Method
dvisc	0.0016961	Pa×s	401.94	Joback Method
dvisc	0.0003612	Pa×s	470.48	Joback Method
dvisc	0.0001140	Pa×s	539.01	Joback Method
dvisc	0.0000467	Pa×s	607.55	Joback Method
dvisc	0.0000229	Pa×s	676.09	Joback Method
dvisc	0.0000128	Pa×s	744.63	Joback Method

Sources

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=C85761304&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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
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