6,10,16,20-tetramethylhexatriacontane

Inchi: InChI=1S/C40H82/c1-7-9-11-12-13-14-15-16-17-18-19-20-21-24-30-38(4)34-28-36-40(6)
InchiKey: IIVIHLHBNNZUGX-UHFFFAOYSA-N
Formula: C40H82
SMILES: CCCCCCCCCCCCCCCCC(C)CCCC(C)CCCCCC(C)CCCC(C)CCCCC
Mol. weight [g/mol]: 563.08

Physical Properties

Property code	Value	Unit	Source
gf	276.16	kJ/mol	Joback Method
hf	-890.05	kJ/mol	Joback Method
hfus	85.26	kJ/mol	Joback Method
hvap	103.08	kJ/mol	Joback Method
log10ws	-15.60		Crippen Method
logp	15.274		Crippen Method
mcvol	574.460	ml/mol	McGowan Method
pc	395.87	kPa	Joback Method
rinpol	3719.00		NIST Webbook
rinpol	3719.00		NIST Webbook
tb	1112.84	K	Joback Method
tc	1460.95	K	Joback Method
tf	480.56	K	Joback Method
vc	2.252	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	2175.86	J/mol×K	1112.84	Joback Method
cpg	2216.12	J/mol×K	1170.86	Joback Method
cpg	2252.75	J/mol×K	1228.88	Joback Method
cpg	2286.29	J/mol×K	1286.90	Joback Method
cpg	2317.29	J/mol×K	1344.92	Joback Method
cpg	2346.28	J/mol×K	1402.93	Joback Method
cpg	2373.80	J/mol×K	1460.95	Joback Method
dvisc	0.0004973	Pa×s	480.56	Joback Method

dvisc	0.0001022	Pa×s	585.94	Joback Method
dvisc	0.0000340	Pa×s	691.32	Joback Method
dvisc	0.0000152	Pa×s	796.70	Joback Method
dvisc	0.0000082	Pa×s	902.08	Joback Method
dvisc	0.0000050	Pa×s	1007.46	Joback Method
dvisc	0.0000034	Pa×s	1112.84	Joback Method

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=R280430&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
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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