6,10,14,20-tetramethyltetracontane

Inchi: InChI=1S/C44H90/c1-7-9-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-28-34-41(3)35
InchiKey: FURHOLBAZLWRNE-UHFFFAOYSA-N
Formula: C44H90
SMILES: CCCCCCCCCCCCCCCCCCCCC(C)CCCCCC(C)CCCC(C)CCCC(C)CCCCC
Mol. weight [g/mol]: 619.19

Physical Properties

Property code	Value	Unit	Source
gf	309.84	kJ/mol	Joback Method
hf	-972.61	kJ/mol	Joback Method
hfus	95.62	kJ/mol	Joback Method
hvap	111.99	kJ/mol	Joback Method
log10ws	-17.27		Crippen Method
logp	16.834		Crippen Method
mcvol	630.820	ml/mol	McGowan Method
pc	341.67	kPa	Joback Method
rinpol	4104.00		NIST Webbook
rinpol	4104.00		NIST Webbook
tb	1204.36	K	Joback Method
tc	1671.51	K	Joback Method
tf	525.64	K	Joback Method
vc	2.475	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	2459.23	J/mol×K	1204.36	Joback Method
cpg	2509.89	J/mol×K	1282.22	Joback Method
cpg	2555.47	J/mol×K	1360.08	Joback Method
cpg	2597.40	J/mol×K	1437.94	Joback Method
cpg	2637.15	J/mol×K	1515.80	Joback Method
cpg	2676.15	J/mol×K	1593.66	Joback Method
cpg	2715.85	J/mol×K	1671.51	Joback Method
dvisc	0.0002375	Pa×s	525.64	Joback Method

dvisc	0.0000503	Pa×s	638.76	Joback Method
dvisc	0.0000170	Pa×s	751.88	Joback Method
dvisc	0.0000076	Pa×s	865.00	Joback Method
dvisc	0.0000041	Pa×s	978.12	Joback Method
dvisc	0.0000025	Pa×s	1091.24	Joback Method
dvisc	0.0000017	Pa×s	1204.36	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R331543&Units=SI
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

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