5,17-dimethylhentetracontane

Inchi: InChI=1S/C43H88/c1-5-7-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-26-29-33-36
InchiKey: DUTVCDQZNBJBNA-UHFFFAOYSA-N
Formula: C43H88
SMILES: CCCCCCCCCCCCCCCCCCCCCCCCC(C)CCCCCCCCCCCC(C)CCCC
Mol. weight [g/mol]: 605.16

Physical Properties

Property code	Value	Unit	Source
gf	306.30	kJ/mol	Joback Method
hf	-941.41	kJ/mol	Joback Method
hfus	100.08	kJ/mol	Joback Method
hvap	110.54	kJ/mol	Joback Method
log10ws	-17.34		Crippen Method
logp	16.732		Crippen Method
mcvol	616.730	ml/mol	McGowan Method
pc	352.00	kPa	Joback Method
rinpol	4163.00		NIST Webbook
rinpol	4163.00		NIST Webbook
tb	1182.36	K	Joback Method
tc	1634.97	K	Joback Method
tf	544.37	K	Joback Method
vc	2.432	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	2388.73	J/mol×K	1182.36	Joback Method
cpg	2603.24	J/mol×K	1559.53	Joback Method
cpg	2565.14	J/mol×K	1484.10	Joback Method
cpg	2525.92	J/mol×K	1408.66	Joback Method
cpg	2484.31	J/mol×K	1333.23	Joback Method
cpg	2439.00	J/mol×K	1257.79	Joback Method
cpg	2641.51	J/mol×K	1634.97	Joback Method
dvisc	0.0000025	Pa×s	1182.36	Joback Method

dvisc	0.0000036	Pa×s	1076.03	Joback Method
dvisc	0.0000056	Pa×s	969.70	Joback Method
dvisc	0.0000099	Pa×s	863.37	Joback Method
dvisc	0.0000203	Pa×s	757.03	Joback Method
dvisc	0.0000530	Pa×s	650.70	Joback Method
dvisc	0.0002005	Pa×s	544.37	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=R280252&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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume