5,9-dimethylhexadecane

Inchi: InChI=1S/C18H38/c1-5-7-9-10-11-14-18(4)16-12-15-17(3)13-8-6-2/h17-18H,5-16H2,1-4H
InchiKey: MSCAXABCKPATMC-UHFFFAOYSA-N
Formula: C18H38
SMILES: CCCCCCCC(C)CCCC(C)CCCC
Mol. weight [g/mol]: 254.49

Physical Properties

Property code	Value	Unit	Source
gf	95.80	kJ/mol	Joback Method
hf	-425.41	kJ/mol	Joback Method
hfus	35.33	kJ/mol	Joback Method
hvap	54.89	kJ/mol	Joback Method
log10ws	-6.87		Crippen Method
logp	6.980		Crippen Method
mcvol	264.480	ml/mol	McGowan Method
pc	1164.84	kPa	Joback Method
rinpol	1691.00		NIST Webbook
rinpol	1691.00		NIST Webbook
tb	610.36	K	Joback Method
tc	773.50	K	Joback Method
tf	262.62	K	Joback Method
vc	1.032	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	724.07	J/mol×K	610.36	Joback Method
cpg	819.32	J/mol×K	746.31	Joback Method
cpg	801.88	J/mol×K	719.12	Joback Method
cpg	783.65	J/mol×K	691.93	Joback Method
cpg	764.63	J/mol×K	664.74	Joback Method
cpg	744.77	J/mol×K	637.55	Joback Method
cpg	836.01	J/mol×K	773.50	Joback Method
dvisc	0.0001069	Pa×s	610.36	Joback Method

dvisc	0.0001529	Pa×s	552.40	Joback Method
dvisc	0.0002378	Pa×s	494.45	Joback Method
dvisc	0.0004158	Pa×s	436.49	Joback Method
dvisc	0.0008629	Pa×s	378.53	Joback Method
dvisc	0.0023312	Pa×s	320.58	Joback Method
dvisc	0.0097660	Pa×s	262.62	Joback Method

Sources

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=R261662&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

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