7,13-dimethylnonadecane

Inchi: InChI=1S/C21H44/c1-5-7-9-12-16-20(3)18-14-11-15-19-21(4)17-13-10-8-6-2/h20-21H,5-
InchiKey: NPKQIDGNCOVKBN-UHFFFAOYSA-N
Formula: C21H44
SMILES: CCCCCCC(C)CCCCCC(C)CCCCCC
Mol. weight [g/mol]: 296.57

Physical Properties

Property code	Value	Unit	Source
gf	121.06	kJ/mol	Joback Method
hf	-487.33	kJ/mol	Joback Method
hfus	43.10	kJ/mol	Joback Method
hvap	61.56	kJ/mol	Joback Method
log10ws	-8.13		Crippen Method
logp	8.150		Crippen Method
mcvol	306.750	ml/mol	McGowan Method
pc	965.67	kPa	Joback Method
rinpol	1986.00		NIST Webbook
rinpol	1986.00		NIST Webbook
tb	679.00	K	Joback Method
tc	843.74	K	Joback Method
tf	296.43	K	Joback Method
vc	1.200	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	901.43	J/mol×K	679.00	Joback Method
cpg	1001.40	J/mol×K	816.28	Joback Method
cpg	983.16	J/mol×K	788.83	Joback Method
cpg	964.07	J/mol×K	761.37	Joback Method
cpg	944.11	J/mol×K	733.91	Joback Method
cpg	923.24	J/mol×K	706.46	Joback Method
cpg	1018.82	J/mol×K	843.74	Joback Method
dvisc	0.0000737	Pa×s	679.00	Joback Method

dvisc	0.0001057	Pa×s	615.24	Joback Method
dvisc	0.0001648	Pa×s	551.48	Joback Method
dvisc	0.0002885	Pa×s	487.71	Joback Method
dvisc	0.0005980	Pa×s	423.95	Joback Method
dvisc	0.0016043	Pa×s	360.19	Joback Method
dvisc	0.0065804	Pa×s	296.43	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R262209&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

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