

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: CCCCCC(C)CCCCC(C)CCCCC
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	m ³ /kmol	Joback Method

Temperature Dependent Properties

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

dvisc	0.0001057	Paxs	615.24	Joback Method
dvisc	0.0001648	Paxs	551.48	Joback Method
dvisc	0.0002885	Paxs	487.71	Joback Method
dvisc	0.0005980	Paxs	423.95	Joback Method
dvisc	0.0016043	Paxs	360.19	Joback Method
dvisc	0.0065804	Paxs	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/ci9903071
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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