

4,12-dimethylheptadecane

Inchi: InChI=1S/C19H40/c1-5-7-11-15-19(4)17-13-10-8-9-12-16-18(3)14-6-2/h18-19H,5-17H2,1
InchiKey: HWLOZJAMQSRGFE-UHFFFAOYSA-N
Formula: C19H40
SMILES: CCCCCC(C)CCCCCCCC(C)CCC
Mol. weight [g/mol]: 268.52

Physical Properties

Property code	Value	Unit	Source
gf	104.22	kJ/mol	Joback Method
hf	-446.05	kJ/mol	Joback Method
hfus	37.92	kJ/mol	Joback Method
hvap	57.11	kJ/mol	Joback Method
log10ws	-7.29		Crippen Method
logp	7.370		Crippen Method
mcvol	278.570	ml/mol	McGowan Method
pc	1092.10	kPa	Joback Method
rinpol	1804.00		NIST Webbook
rinpol	1804.00		NIST Webbook
rinpol	1804.00		NIST Webbook
tb	633.24	K	Joback Method
tc	796.51	K	Joback Method
tf	273.89	K	Joback Method
vc	1.087	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	782.01	J/molxK	633.24	Joback Method
cpg	878.88	J/molxK	769.30	Joback Method
cpg	861.15	J/molxK	742.09	Joback Method
cpg	842.63	J/molxK	714.87	Joback Method
cpg	823.28	J/molxK	687.66	Joback Method
cpg	803.08	J/molxK	660.45	Joback Method
cpg	895.83	J/molxK	796.51	Joback Method

dvisc	0.0000949	Paxs	633.24	Joback Method
dvisc	0.0001358	Paxs	573.35	Joback Method
dvisc	0.0002114	Paxs	513.46	Joback Method
dvisc	0.0003698	Paxs	453.56	Joback Method
dvisc	0.0007671	Paxs	393.67	Joback Method
dvisc	0.0020674	Paxs	333.78	Joback Method
dvisc	0.0085960	Paxs	273.89	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=R261642&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071

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
mvol:	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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