

5,5,7,7-Tetraethylundecane

Inchi:	InChI=1S/C19H40/c1-7-13-15-18(9-3,10-4)17-19(11-5,12-6)16-14-8-2/h7-17H2,1-6H3
InchiKey:	KFDLMAGHOGLMEI-UHFFFAOYSA-N
Formula:	C19H40
SMILES:	CCCCC(CC)(CC)CC(CC)(CC)CCCC
Mol. weight [g/mol]:	268.52

Physical Properties

Property code	Value	Unit	Source
gf	114.78	kJ/mol	Joback Method
hf	-452.99	kJ/mol	Joback Method
hfus	30.14	kJ/mol	Joback Method
hvap	55.30	kJ/mol	Joback Method
log10ws	-7.29		Crippen Method
logp	7.370		Crippen Method
mcvol	278.570	ml/mol	McGowan Method
pc	1108.15	kPa	Joback Method
rinpol	1733.00		NIST Webbook
tb	627.66	K	Joback Method
tc	798.94	K	Joback Method
tf	308.73	K	Joback Method
vc	1.077	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	785.49	J/molxK	627.66	Joback Method
cpg	884.84	J/molxK	770.39	Joback Method
cpg	866.88	J/molxK	741.84	Joback Method
cpg	848.01	J/molxK	713.30	Joback Method
cpg	828.19	J/molxK	684.75	Joback Method
cpg	807.37	J/molxK	656.21	Joback Method
cpg	901.94	J/molxK	798.94	Joback Method
dvisc	0.0000838	Paxs	627.66	Joback Method
dvisc	0.0001226	Paxs	574.50	Joback Method

dvisc	0.0001939	Paxs	521.35	Joback Method
dvisc	0.0003401	Paxs	468.19	Joback Method
dvisc	0.0006889	Paxs	415.04	Joback Method
dvisc	0.0017170	Paxs	361.88	Joback Method
dvisc	0.0058611	Paxs	308.73	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=U360420&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
mccvol:	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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