

5-Butyl-5-ethyl-tridecane

Inchi:	InChI=1S/C19H40/c1-5-9-12-13-14-15-18-19(8-4,16-10-6-2)17-11-7-3/h5-18H2,1-4H3
InchiKey:	NIVHAPVTIHNWOV-UHFFFAOYSA-N
Formula:	C19H40
SMILES:	CCCCCCCCC(CC)(CCCC)CCCC
Mol. weight [g/mol]:	268.52

Physical Properties

Property code	Value	Unit	Source
gf	111.94	kJ/mol	Joback Method
hf	-444.24	kJ/mol	Joback Method
hfus	37.55	kJ/mol	Joback Method
hvap	56.59	kJ/mol	Joback Method
log10ws	-7.53		Crippen Method
logp	7.514		Crippen Method
mcvol	278.570	ml/mol	McGowan Method
pc	1094.27	kPa	Joback Method
rinpol	1747.00		NIST Webbook
tb	630.89	K	Joback Method
tc	795.73	K	Joback Method
tf	306.31	K	Joback Method
vc	1.089	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	783.43	J/molxK	630.89	Joback Method
cpg	804.55	J/molxK	658.36	Joback Method
cpg	824.75	J/molxK	685.84	Joback Method
cpg	844.05	J/molxK	713.31	Joback Method
cpg	862.50	J/molxK	740.78	Joback Method
cpg	880.12	J/molxK	768.26	Joback Method
cpg	896.96	J/molxK	795.73	Joback Method
dvisc	0.0048700	Paxs	306.31	Joback Method
dvisc	0.0015472	Paxs	360.41	Joback Method

dvisc	0.0006630	Paxs	414.50	Joback Method
dvisc	0.0003455	Paxs	468.60	Joback Method
dvisc	0.0002061	Paxs	522.70	Joback Method
dvisc	0.0001354	Paxs	576.79	Joback Method
dvisc	0.0000956	Paxs	630.89	Joback Method

Sources

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=R415606&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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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