

5-Butyl-5-ethylheptadecane

Inchi:	InChI=1S/C23H48/c1-5-9-12-13-14-15-16-17-18-19-22-23(8-4,20-10-6-2)21-11-7-3/h5-22
InchiKey:	BKSBRIQVRDMQLZ-UHFFFAOYSA-N
Formula:	C23H48
SMILES:	CCCCCCCCCCCC(CC)(CCCC)CCCC
Mol. weight [g/mol]:	324.63

Physical Properties

Property code	Value	Unit	Source
gf	145.62	kJ/mol	Joback Method
hf	-526.80	kJ/mol	Joback Method
hfus	47.91	kJ/mol	Joback Method
hvap	65.50	kJ/mol	Joback Method
log10ws	-9.21		Crippen Method
logp	9.074		Crippen Method
mvol	334.930	ml/mol	McGowan Method
pc	861.50	kPa	Joback Method
rinpol	2143.00		NIST Webbook
tb	722.41	K	Joback Method
tc	891.28	K	Joback Method
tf	351.39	K	Joback Method
vc	1.312	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1025.52	J/molxK	722.41	Joback Method
cpg	1128.01	J/molxK	863.13	Joback Method
cpg	1109.38	J/molxK	834.99	Joback Method
cpg	1089.86	J/molxK	806.84	Joback Method
cpg	1069.41	J/molxK	778.70	Joback Method
cpg	1047.98	J/molxK	750.55	Joback Method
cpg	1145.80	J/molxK	891.28	Joback Method
dvisc	0.0000549	Paxs	722.41	Joback Method
dvisc	0.0000781	Paxs	660.57	Joback Method

dvisc	0.0001194	Paxs	598.74	Joback Method
dvisc	0.0002014	Paxs	536.90	Joback Method
dvisc	0.0003891	Paxs	475.06	Joback Method
dvisc	0.0009155	Paxs	413.23	Joback Method
dvisc	0.0029114	Paxs	351.39	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U360430&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

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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