

3,3,13,13-Tetraethylpentadecane

Inchi:	InChI=1S/C23H48/c1-7-22(8-2,9-3)20-18-16-14-13-15-17-19-21-23(10-4,11-5)12-6/h7-21
InchiKey:	ONBYRQIRQPURHQ-UHFFFAOYSA-N
Formula:	C23H48
SMILES:	CCC(CC)(CC)CCCCCCCCC(CC)(CC)CC
Mol. weight [g/mol]:	324.63

Physical Properties

Property code	Value	Unit	Source
gf	148.46	kJ/mol	Joback Method
hf	-535.55	kJ/mol	Joback Method
hfus	40.50	kJ/mol	Joback Method
hvap	64.20	kJ/mol	Joback Method
log10ws	-8.97		Crippen Method
logp	8.930		Crippen Method
mcvol	334.930	ml/mol	McGowan Method
pc	871.19	kPa	Joback Method
rinpol	2183.00		NIST Webbook
tb	719.18	K	Joback Method
tc	891.61	K	Joback Method
tf	353.81	K	Joback Method
vc	1.302	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1026.79	J/molxK	719.18	Joback Method
cpg	1049.54	J/molxK	747.92	Joback Method
cpg	1071.20	J/molxK	776.66	Joback Method
cpg	1091.83	J/molxK	805.40	Joback Method
cpg	1111.49	J/molxK	834.14	Joback Method
cpg	1130.24	J/molxK	862.87	Joback Method
cpg	1148.12	J/molxK	891.61	Joback Method
dvisc	0.0031951	Paxs	353.81	Joback Method
dvisc	0.0009364	Paxs	414.70	Joback Method

dvisc	0.0003758	Paxs	475.60	Joback Method
dvisc	0.0001855	Paxs	536.49	Joback Method
dvisc	0.0001058	Paxs	597.39	Joback Method
dvisc	0.0000669	Paxs	658.28	Joback Method
dvisc	0.0000457	Paxs	719.18	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=U360423&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
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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