5,5,11,11-Tetraethylpentadecane

Inchi: InChI=1S/C23H48/c1-7-13-18-22(9-3,10-4)20-16-15-17-21-23(11-5,12-6)19-14-8-2/h7-21
InchiKey: YECRIASJGRJULJ-UHFFFAOYSA-N
Formula: C23H48
SMILES: CCCCC(CC)(CC)CCCCCC(CC)(CC)CCCC
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	2130.00		NIST Webbook
rinpol	2130.00		NIST Webbook
tb	719.18	K	Joback Method
tc	891.61	K	Joback Method
tf	353.81	K	Joback Method
vc	1.302	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1026.79	J/mol×K	719.18	Joback Method
cpg	1049.54	J/mol×K	747.92	Joback Method
cpg	1071.20	J/mol×K	776.66	Joback Method
cpg	1091.83	J/mol×K	805.40	Joback Method
cpg	1111.49	J/mol×K	834.14	Joback Method
cpg	1130.24	J/mol×K	862.87	Joback Method
cpg	1148.12	J/mol×K	891.61	Joback Method
dvisc	0.0031951	Pa×s	353.81	Joback Method

dvisc	0.0009364	Pa×s	414.70	Joback Method
dvisc	0.0003758	Pa×s	475.60	Joback Method
dvisc	0.0001855	Pa×s	536.49	Joback Method
dvisc	0.0001058	Pa×s	597.39	Joback Method
dvisc	0.0000669	Pa×s	658.28	Joback Method
dvisc	0.0000457	Pa×s	719.18	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=R415428&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