Octadecane, 2,6,10,14-tetramethyl-

Other names: 2,6,10,14-Tetramethyloctadecane
Inchi: InChI=1S/C22H46/c1-7-8-13-20(4)15-10-17-22(6)18-11-16-21(5)14-9-12-19(2)3/h19-22H
InchiKey: PUTSHCSOTBWQAI-UHFFFAOYSA-N
Formula: C22H46
SMILES: CCCCC(C)CCCC(C)CCCC(C)CCCC(C)C
Mol. weight [g/mol]: 310.60
CAS: 54964-82-8

Physical Properties

Property code	Value	Unit	Source
gf	124.60	kJ/mol	Joback Method
hf	-518.53	kJ/mol	Joback Method
hfus	38.64	kJ/mol	Joback Method
hvap	63.01	kJ/mol	Joback Method
log10ws	-8.06		Crippen Method
logp	8.252		Crippen Method
mcvol	320.840	ml/mol	McGowan Method
pc	919.39	kPa	Joback Method
rinpol	1959.00		NIST Webbook
rinpol	1960.00		NIST Webbook
rinpol	1957.00		NIST Webbook
rinpol	1957.00		NIST Webbook
rinpol	1984.00		NIST Webbook
rinpol	1984.00		NIST Webbook
rinpol	1984.00		NIST Webbook
rinpol	1989.00		NIST Webbook
rinpol	1962.00		NIST Webbook
rinpol	1957.00		NIST Webbook
rinpol	1959.00		NIST Webbook
rinpol	1960.00		NIST Webbook
rinpol	1970.00		NIST Webbook
rinpol	1987.00		NIST Webbook
tb	701.00	K	Joback Method
tc	870.08	K	Joback Method
tf	277.70	K	Joback Method
vc	1.244	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	963.48	J/mol×K	701.00	Joback Method
cpg	1066.76	J/mol×K	841.90	Joback Method
cpg	1048.01	J/mol×K	813.72	Joback Method
cpg	1028.34	J/mol×K	785.54	Joback Method
cpg	1007.71	J/mol×K	757.36	Joback Method
cpg	986.10	J/mol×K	729.18	Joback Method
cpg	1084.62	J/mol×K	870.08	Joback Method
dvisc	0.0000552	Pa×s	701.00	Joback Method
dvisc	0.0000828	Pa×s	630.45	Joback Method
dvisc	0.0001373	Pa×s	559.90	Joback Method
dvisc	0.0002637	Pa×s	489.35	Joback Method
dvisc	0.0006307	Pa×s	418.80	Joback Method
dvisc	0.0021479	Pa×s	348.25	Joback Method
dvisc	0.0136332	Pa×s	277.70	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=C54964828&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