Hexadecane, 2,6,10,15-tetramethyl

Inchi: InChI=1S/C20H42/c1-17(2)11-7-8-13-19(5)15-10-16-20(6)14-9-12-18(3)4/h17-20H,7-16H
InchiKey: ZLIVUBWAIKKIOS-UHFFFAOYSA-N
Formula: C20H42
SMILES: CC(C)CCCCC(C)CCCC(C)CCCC(C)C
Mol. weight [g/mol]: 282.55

Physical Properties

Property code	Value	Unit	Source
gf	107.76	kJ/mol	Joback Method
hf	-477.25	kJ/mol	Joback Method
hfus	33.46	kJ/mol	Joback Method
hvap	58.56	kJ/mol	Joback Method
log10ws	-7.23		Crippen Method
logp	7.472		Crippen Method
mcvol	292.660	ml/mol	McGowan Method
pc	1036.57	kPa	Joback Method
rinpol	1785.00		NIST Webbook
rinpol	1806.00		NIST Webbook
rinpol	1788.00		NIST Webbook
rinpol	1788.00		NIST Webbook
rinpol	1785.00		NIST Webbook
tb	655.24	K	Joback Method
tc	822.89	K	Joback Method
tf	255.16	K	Joback Method
vc	1.131	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	841.81	J/mol×K	655.24	Joback Method
cpg	863.83	J/mol×K	683.18	Joback Method
cpg	884.89	J/mol×K	711.12	Joback Method
cpg	905.01	J/mol×K	739.06	Joback Method
cpg	924.24	J/mol×K	767.00	Joback Method

cpg	942.58	J/mol×K	794.94	Joback Method
cpg	960.09	J/mol×K	822.89	Joback Method
dvisc	0.0197594	Pa×s	255.16	Joback Method
dvisc	0.0029435	Pa×s	321.84	Joback Method
dvisc	0.0008429	Pa×s	388.52	Joback Method
dvisc	0.0003482	Pa×s	455.20	Joback Method
dvisc	0.0001803	Pa×s	521.88	Joback Method
dvisc	0.0001084	Pa×s	588.56	Joback Method
dvisc	0.0000722	Pa×s	655.24	Joback Method

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=R213806&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