Eicosane, 2,6,10,14-tetramethyl

Inchi: InChI=1S/C24H50/c1-7-8-9-10-15-22(4)17-12-19-24(6)20-13-18-23(5)16-11-14-21(2)3/h2
InchiKey: NEVHDHCRALMPHA-UHFFFAOYSA-N
Formula: C24H50
SMILES: CCCCCCC(C)CCCC(C)CCCC(C)CCCC(C)C
Mol. weight [g/mol]: 338.65

Physical Properties

Property code	Value	Unit	Source
gf	141.44	kJ/mol	Joback Method
hf	-559.81	kJ/mol	Joback Method
hfus	43.82	kJ/mol	Joback Method
hvap	67.47	kJ/mol	Joback Method
log10ws	-8.90		Crippen Method
logp	9.032		Crippen Method
mcvol	349.020	ml/mol	McGowan Method
pc	821.01	kPa	Joback Method
rinpol	2140.00		NIST Webbook
rinpol	2140.00		NIST Webbook
rinpol	2140.00		NIST Webbook
rinpol	2146.00		NIST Webbook
tb	746.76	K	Joback Method
tc	919.40	K	Joback Method
tf	300.24	K	Joback Method
vc	1.355	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1089.01	J/mol×K	746.76	Joback Method
cpg	1112.32	J/mol×K	775.53	Joback Method
cpg	1134.54	J/mol×K	804.31	Joback Method
cpg	1155.71	J/mol×K	833.08	Joback Method
cpg	1175.86	J/mol×K	861.86	Joback Method
cpg	1195.03	J/mol×K	890.63	Joback Method

cpg	1213.26	J/mol×K	919.40	Joback Method
dvisc	0.0094251	Pa×s	300.24	Joback Method
dvisc	0.0015571	Pa×s	374.66	Joback Method
dvisc	0.0004672	Pa×s	449.08	Joback Method
dvisc	0.0001974	Pa×s	523.50	Joback Method
dvisc	0.0001034	Pa×s	597.92	Joback Method
dvisc	0.0000625	Pa×s	672.34	Joback Method
dvisc	0.0000417	Pa×s	746.76	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=R213742&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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