Cyclohexane, 1,4-dimethyl-2-octadecyl-

Other names: 1,4-Dimethyl-3-n-octadecylcyclohexane
2,5-Dimethyl-1-n-octadecylcyclohexane
Inchi: InChI=1S/C26H52/c1-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-26-23-24(2)21-22-
InchiKey: IYAUESUIHMJWPO-UHFFFAOYSA-N
Formula: C26H52
SMILES: CCCCCCCCCCCCCCCCCCC1CC(C)CCC1C
Mol. weight [g/mol]: 364.69
CAS: 55282-02-5

Physical Properties

Property code	Value	Unit	Source
gf	177.07	kJ/mol	Joback Method
hf	-566.33	kJ/mol	Joback Method
hfus	57.07	kJ/mol	Joback Method
hvap	73.28	kJ/mol	Joback Method
log10ws	-9.88		Crippen Method
logp	9.710		Crippen Method
mcvol	366.340	ml/mol	McGowan Method
pc	782.43	kPa	Joback Method
tb	804.49	K	Joback Method
tc	988.23	K	Joback Method
tf	381.68	K	Joback Method
vc	1.423	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1221.49	J/mol×K	804.49	Joback Method
cpg	1246.57	J/mol×K	835.11	Joback Method
cpg	1270.27	J/mol×K	865.74	Joback Method
cpg	1292.64	J/mol×K	896.36	Joback Method
cpg	1313.73	J/mol×K	926.98	Joback Method
cpg	1333.58	J/mol×K	957.61	Joback Method
cpg	1352.23	J/mol×K	988.23	Joback Method

dvisc	0.0019720	Pa×s	381.68	Joback Method
dvisc	0.0007439	Pa×s	452.15	Joback Method
dvisc	0.0003650	Pa×s	522.62	Joback Method
dvisc	0.0002121	Pa×s	593.09	Joback Method
dvisc	0.0001383	Pa×s	663.55	Joback Method
dvisc	0.0000979	Pa×s	734.02	Joback Method
dvisc	0.0000736	Pa×s	804.49	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=C55282025&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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume