Cyclopentane, (4-octyldodecyl)-

Other names: Heptadecane, 9-(3-cyclopentylpropyl)-
1-Cyclopentyl-4-n-octyldodecane
9-(3-Cyclopentyl-propyl)-heptadecane
Inchi: InChI=1S/C25H50/c1-3-5-7-9-11-13-18-24(19-14-12-10-8-6-4-2)22-17-23-25-20-15-16-21
InchiKey: LEMCTUNZNGDMNT-UHFFFAOYSA-N
Formula: C25H50
SMILES: CCCCCCCCC(CCCCCCCC)CCCC1CCCC1
Mol. weight [g/mol]: 350.66
CAS: 5638-09-5

Physical Properties

Property code	Value	Unit	Source
gf	193.73	kJ/mol	Joback Method
hf	-504.13	kJ/mol	Joback Method
hfus	50.92	kJ/mol	Joback Method
hvap	71.11	kJ/mol	Joback Method
log10ws	-9.70		Crippen Method
logp	9.464		Crippen Method
mcvol	352.250	ml/mol	McGowan Method
pc	849.99	kPa	Joback Method
tb	786.24	K	Joback Method
tc	967.49	K	Joback Method
tf	252.60 ± 1.00	K	NIST Webbook
tf	252.60 ± 1.00	K	NIST Webbook
tf	252.55 ± 0.50	K	NIST Webbook
vc	1.371	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1274.24	J/mol×K	967.49	Joback Method
cpg	1147.89	J/mol×K	786.24	Joback Method
cpg	1171.83	J/mol×K	816.45	Joback Method
cpg	1194.54	J/mol×K	846.66	Joback Method

cpg	1216.09	J/mol×K	876.87	Joback Method
cpg	1236.52	J/mol×K	907.07	Joback Method
cpg	1255.88	J/mol×K	937.28	Joback Method
dvisc	0.0000682	Pa×s	786.24	Joback Method
dvisc	0.0030132	Pa×s	367.41	Joback Method
dvisc	0.0009680	Pa×s	437.22	Joback Method
dvisc	0.0004251	Pa×s	507.02	Joback Method
dvisc	0.0002278	Pa×s	576.83	Joback Method
dvisc	0.0001397	Pa×s	646.63	Joback Method
dvisc	0.0000942	Pa×s	716.43	Joback Method
hvapt	86.90	kJ/mol	495.00	NIST Webbook

Sources

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
McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C5638095&Units=SI

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
hvapt: Enthalpy of vaporization at a given temperature
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