1,1'-Bicyclopentyl, 2-hexadecyl-

Other names: 1-Cyclopentyl-2-n-hexadecylcyclopentane
2-Hexadecylbicyclopentyl
Inchi: InChI=1S/C26H50/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-19-25-22-18-23-26(25)24-20-1
InchiKey: ZENJJKDYBBKFAI-UHFFFAOYSA-N
Formula: C26H50
SMILES: CCCCCCCCCCCCCCCCC1CCCC1C1CCCC1
Mol. weight [g/mol]: 362.68
CAS: 55334-11-7

Physical Properties

Property code	Value	Unit	Source
gf	233.43	kJ/mol	Joback Method
hf	-479.35	kJ/mol	Joback Method
hfus	52.04	kJ/mol	Joback Method
hvap	73.67	kJ/mol	Joback Method
log10ws	-9.77		Crippen Method
logp	9.464		Crippen Method
mcvol	355.480	ml/mol	McGowan Method
pc	871.71	kPa	Joback Method
tb	820.17	K	Joback Method
tc	1011.71	K	Joback Method
tf	291.90 ± 0.50	K	NIST Webbook
tf	291.90 ± 2.00	K	NIST Webbook
vc	1.373	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1340.64	J/mol×K	1011.71	Joback Method
cpg	1322.04	J/mol×K	979.79	Joback Method
cpg	1302.30	J/mol×K	947.86	Joback Method
cpg	1281.34	J/mol×K	915.94	Joback Method
cpg	1259.09	J/mol×K	884.02	Joback Method
cpg	1235.49	J/mol×K	852.09	Joback Method

cpg	1210.46	J/mol×K	820.17	Joback Method
dvisc	0.0024330	Pa×s	400.34	Joback Method
dvisc	0.0001233	Pa×s	820.17	Joback Method
dvisc	0.0001607	Pa×s	750.20	Joback Method
dvisc	0.0002213	Pa×s	680.23	Joback Method
dvisc	0.0003279	Pa×s	610.25	Joback Method
dvisc	0.0005379	Pa×s	540.28	Joback Method
dvisc	0.0010225	Pa×s	470.31	Joback Method
hvapt	97.70	kJ/mol	513.50	NIST Webbook

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=C55334117&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
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