Cyclopentane, 1,1'-[3-(2-cyclopentylethyl)-1,5-pentanediyl]bis-

Other names: 1,5-Dicyclopentyl-3-(2-cyclopentylethyl)pentane
1,5-Dicylopentyl-3-(2-cyclopentylethyl)-2-pentane

Inchi: InChI=1S/C22H40/c1-2-8-19(7-1)13-16-22(17-14-20-9-3-4-10-20)18-15-21-11-5-6-12-21/

InchiKey: YJNCHJAXCNQATD-UHFFFAOYSA-N

Formula: C22H40

SMILES: C1CCC(CCC(CCC2CCCC2)CCC2CCCC2)C1

Mol. weight [g/mol]: 304.55

CAS: 55255-85-1

Physical Properties

Property code	Value	Unit	Source
gf	241.57	kJ/mol	Joback Method
hf	-321.25	kJ/mol	Joback Method
hfus	31.02	kJ/mol	Joback Method
hvap	64.95	kJ/mol	Joback Method
log10ws	-7.75		Crippen Method
logp	7.514		Crippen Method
mcvol	288.260	ml/mol	McGowan Method
pc	1292.07	kPa	Joback Method
tb	748.16	K	Joback Method
tc	961.21	K	Joback Method
tf	355.40	K	Joback Method
vc	1.085	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1085.29	J/mol×K	961.21	Joback Method
cpg	948.32	J/mol×K	748.16	Joback Method
cpg	975.18	J/mol×K	783.67	Joback Method
cpg	1000.30	J/mol×K	819.18	Joback Method
cpg	1023.76	J/mol×K	854.69	Joback Method
cpg	1045.69	J/mol×K	890.19	Joback Method
cpg	1066.16	J/mol×K	925.70	Joback Method

dvisc	0.0002169	Pa×s	748.16	Joback Method
dvisc	0.0052129	Pa×s	355.40	Joback Method
dvisc	0.0020322	Pa×s	420.86	Joback Method
dvisc	0.0010209	Pa×s	486.32	Joback Method
dvisc	0.0006039	Pa×s	551.78	Joback Method
dvisc	0.0003993	Pa×s	617.24	Joback Method
dvisc	0.0002858	Pa×s	682.70	Joback Method
hvapt	83.60	kJ/mol	462.00	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=C55255851&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

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