Benzene, [6-cyclopentyl-3-(3-cyclopentylpropyl)hexyl]-

Other names: 1,7-Dicyclopentyl-4-(2-phenethyl)heptane
Inchi: InChI=1S/C25H40/c1-2-10-24(11-3-1)20-21-25(18-8-16-22-12-4-5-13-22)19-9-17-23-14-
InchiKey: CFGYPQLTAHANIB-UHFFFAOYSA-N
Formula: C25H40
SMILES: c1ccc(CCC(CCCC2CCCC2)CCCC2CCCC2)cc1
Mol. weight [g/mol]: 340.59
CAS: 55334-31-1

Physical Properties

Property code	Value	Unit	Source
gf	342.69	kJ/mol	Joback Method
hf	-207.12	kJ/mol	Joback Method
hfus	38.89	kJ/mol	Joback Method
hvap	73.65	kJ/mol	Joback Method
log10ws	-8.45		Crippen Method
logp	7.956		Crippen Method
mcvol	317.630	ml/mol	McGowan Method
pc	1173.63	kPa	Joback Method
tb	828.20	K	Joback Method
tc	1044.76	K	Joback Method
tf	404.73	K	Joback Method
vc	1.204	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1178.73	J/mol×K	1044.76	Joback Method
cpg	1058.25	J/mol×K	828.20	Joback Method
cpg	1081.96	J/mol×K	864.29	Joback Method
cpg	1104.07	J/mol×K	900.39	Joback Method
cpg	1124.69	J/mol×K	936.48	Joback Method
cpg	1143.94	J/mol×K	972.57	Joback Method
cpg	1161.91	J/mol×K	1008.67	Joback Method
dvisc	0.0001043	Pa×s	828.20	Joback Method

dvisc	0.0026391	Pa×s	404.73	Joback Method
dvisc	0.0010326	Pa×s	475.31	Joback Method
dvisc	0.0005150	Pa×s	545.89	Joback Method
dvisc	0.0003012	Pa×s	616.46	Joback Method
dvisc	0.0001967	Pa×s	687.04	Joback Method
dvisc	0.0001391	Pa×s	757.62	Joback Method
hvapt	92.00	kJ/mol	506.00	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=C55334311&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