Octane, 3,6-dimethyl-3,6-diphenyl

Other names: Benzene, 1,1'-(1,4-diethyl-1,4-dimethyl-1,4-butanediyl)bis-
Inchi: InChI=1S/C22H30/c1-5-21(3,19-13-9-7-10-14-19)17-18-22(4,6-2)20-15-11-8-12-16-20/h7
InchiKey: KJSHBAGFGAQUBT-UHFFFAOYSA-N
Formula: C22H30
SMILES: CCC(C)(CCC(C)(CC)c1ccccc1)c1ccccc1
Mol. weight [g/mol]: 294.47
CAS: 21411-35-8

Physical Properties

Property code	Value	Unit	Source
gf	364.86	kJ/mol	Joback Method
hf	-41.85	kJ/mol	Joback Method
hfus	25.99	kJ/mol	Joback Method
hvap	66.53	kJ/mol	Joback Method
log10ws	-6.58		Crippen Method
logp	6.502		Crippen Method
mcvol	273.320	ml/mol	McGowan Method
pc	1445.73	kPa	Joback Method
tb	749.66	K	Joback Method
tc	979.30	K	Joback Method
tf	395.38	K	Joback Method
vc	1.030	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	806.42	J/mol×K	749.66	Joback Method
cpg	897.70	J/mol×K	941.03	Joback Method
cpg	881.93	J/mol×K	902.76	Joback Method
cpg	865.06	J/mol×K	864.48	Joback Method
cpg	846.96	J/mol×K	826.21	Joback Method
cpg	827.46	J/mol×K	787.93	Joback Method
cpg	912.53	J/mol×K	979.30	Joback Method
dvisc	0.0000521	Pa×s	749.66	Joback Method

dvisc	0.0000728	Pa×s	690.61	Joback Method
dvisc	0.0001082	Pa×s	631.57	Joback Method
dvisc	0.0001746	Pa×s	572.52	Joback Method
dvisc	0.0003144	Pa×s	513.47	Joback Method
dvisc	0.0006599	Pa×s	454.43	Joback Method
dvisc	0.0017285	Pa×s	395.38	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=C21411358&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