5,6,6a,7,8,12b,12c-Octahydrodibenzo[a,i]biphenyl

Inchi: InChI=1S/C20H20/c1-3-7-15-13(5-1)9-11-17-18-12-10-14-6-2-4-8-16(14)20(18)19(15)17/
InchiKey: LKMAMCWAHCZBAI-UHFFFAOYSA-N
Formula: C20H20
SMILES: c1ccc2c(c1)CCC1C3CCc4ccccc4C3C21
Mol. weight [g/mol]: 260.37
CAS: 42182-84-3

Physical Properties

Property code	Value	Unit	Source
chs	-10808.70 ± 1.50	kJ/mol	NIST Webbook
chs	-10808.70 ± 1.50	kJ/mol	NIST Webbook
gf	509.72	kJ/mol	Joback Method
hf	198.21	kJ/mol	Joback Method
hfs	80.10 ± 1.80	kJ/mol	NIST Webbook
hfs	80.10 ± 1.80	kJ/mol	NIST Webbook
hfus	32.44	kJ/mol	Joback Method
hvap	65.25	kJ/mol	Joback Method
log10ws	-5.46		Crippen Method
logp	4.692		Crippen Method
mcvol	212.560	ml/mol	McGowan Method
pc	2115.83	kPa	Joback Method
tb	731.60	K	Joback Method
tc	984.10	K	Joback Method
tf	446.14	K	Joback Method
vc	0.818	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	641.58	J/mol×K	731.60	Joback Method
cpg	661.98	J/mol×K	773.68	Joback Method
cpg	680.89	J/mol×K	815.77	Joback Method
cpg	698.56	J/mol×K	857.85	Joback Method
cpg	715.21	J/mol×K	899.93	Joback Method

cpg	731.08	J/mol×K	942.02	Joback Method
cpg	746.41	J/mol×K	984.10	Joback Method
cpl	333.40	J/mol×K	298.15	NIST Webbook
dvisc	0.0042492	Pa×s	446.14	Joback Method
dvisc	0.0041143	Pa×s	493.72	Joback Method
dvisc	0.0040063	Pa×s	541.29	Joback Method
dvisc	0.0039180	Pa×s	588.87	Joback Method
dvisc	0.0038444	Pa×s	636.45	Joback Method
dvisc	0.0037821	Pa×s	684.02	Joback Method
dvisc	0.0037288	Pa×s	731.60	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=C42182843&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

Legend

chs:	Standard solid enthalpy of combustion
cpg:	Ideal gas heat capacity
cpl:	Liquid phase heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfs:	Solid phase 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