N-phenyl n'-cyclohexyl p-phenylene diamine

Other names: N-cyclohexyl-N'-phenyl-p-phenylenediamine
Inchi: InChI=1S/C18H22N2/c1-3-7-15(8-4-1)19-17-11-13-18(14-12-17)20-16-9-5-2-6-10-16/h1,
InchiKey: ZRMMVODKVLXCBB-UHFFFAOYSA-N
Formula: C18H22N2
SMILES: c1ccc(Nc2ccc(NC3CCCCC3)cc2)cc1
Mol. weight [g/mol]: 266.38
CAS: 101-87-1

Physical Properties

Property code	Value	Unit	Source
gf	519.10	kJ/mol	Joback Method
hf	208.00	kJ/mol	Joback Method
hfus	32.10	kJ/mol	Joback Method
hvap	74.18	kJ/mol	Joback Method
log10ws	-5.39		Crippen Method
logp	5.175		Crippen Method
mcvol	226.060	ml/mol	McGowan Method
pc	2338.29	kPa	Joback Method
tb	789.47	K	Joback Method
tc	1042.92	K	Joback Method
tf	470.68	K	Joback Method
vc	0.831	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	687.29	J/mol×K	789.47	Joback Method
cpg	706.41	J/mol×K	831.71	Joback Method
cpg	723.82	J/mol×K	873.95	Joback Method
cpg	739.63	J/mol×K	916.20	Joback Method
cpg	753.96	J/mol×K	958.44	Joback Method
cpg	766.93	J/mol×K	1000.68	Joback Method
cpg	778.65	J/mol×K	1042.92	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=C101871&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
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