P-phenylenediamine, n,n'-bis(p-biphenylyl)-

Inchi: InChI=1S/C30H24N2/c1-3-7-23(8-4-1)25-11-15-27(16-12-25)31-29-19-21-30(22-20-29)3
InchiKey: ZBZGMYOKPNRAIU-UHFFFAOYSA-N
Formula: C30H24N2
SMILES: c1ccc(-c2ccc(Nc3ccc(Nc4ccc(-c5ccccc5)cc4)cc3)cc2)cc1
Mol. weight [g/mol]: 412.52
CAS: 128049-24-1

Physical Properties

Property code	Value	Unit	Source
gf	913.66	kJ/mol	Joback Method
hf	592.65	kJ/mol	Joback Method
hfus	52.69	kJ/mol	Joback Method
hvap	108.61	kJ/mol	Joback Method
log10ws	-10.29		Crippen Method
logp	8.508		Crippen Method
mcvol	334.720	ml/mol	McGowan Method
pc	1649.77	kPa	Joback Method
tb	1134.48	K	Joback Method
tc	1417.67	K	Joback Method
tf	702.84	K	Joback Method
vc	1.246	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1082.80	J/mol×K	1134.48	Joback Method
cpg	1095.84	J/mol×K	1181.68	Joback Method
cpg	1108.10	J/mol×K	1228.88	Joback Method
cpg	1119.86	J/mol×K	1276.08	Joback Method
cpg	1131.39	J/mol×K	1323.27	Joback Method
cpg	1142.93	J/mol×K	1370.47	Joback Method
cpg	1154.76	J/mol×K	1417.67	Joback Method

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=C128049241&Units=SI

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

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