1,4-Benzenediamine, N,N'-diethyl-

Other names: p-Phenylenediamine, N,N'-diethyl-
N,N'-Diethyl-p-phenylenediamine
Inchi: InChI=1S/C10H16N2/c1-3-11-9-5-7-10(8-6-9)12-4-2/h5-8,11-12H,3-4H2,1-2H3
InchiKey: ZEMODTUZIWTRPF-UHFFFAOYSA-N
Formula: C10H16N2
SMILES: CCNc1ccc(NCC)cc1
Mol. weight [g/mol]: 164.25
CAS: 3010-30-8

Physical Properties

Property code	Value	Unit	Source
gf	314.88	kJ/mol	Joback Method
hf	82.27	kJ/mol	Joback Method
hfus	25.51	kJ/mol	Joback Method
hvap	53.66	kJ/mol	Joback Method
log10ws	-2.33		Crippen Method
logp	2.550		Crippen Method
mcvol	147.960	ml/mol	McGowan Method
pc	2966.57	kPa	Joback Method
tb	560.20	K	Joback Method
tc	768.31	K	Joback Method
tf	346.72	K	Joback Method
vc	0.557	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	354.20	J/mol×K	560.20	Joback Method
cpg	368.96	J/mol×K	594.89	Joback Method
cpg	382.88	J/mol×K	629.57	Joback Method
cpg	395.99	J/mol×K	664.26	Joback Method
cpg	408.32	J/mol×K	698.94	Joback Method
cpg	419.90	J/mol×K	733.63	Joback Method
cpg	430.77	J/mol×K	768.31	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=C3010308&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