2,3-Naphthalenediamine

Other names: 2,3-Diaminonaphthalene
2,3-Naphthylenediamine
Inchi: InChI=1S/C10H10N2/c11-9-5-7-3-1-2-4-8(7)6-10(9)12/h1-6H,11-12H2
InchiKey: XTBLDMQMUSHDEN-UHFFFAOYSA-N
Formula: C10H10N2
SMILES: Nc1cc2ccccc2cc1N
Mol. weight [g/mol]: 158.20
CAS: 771-97-1

Physical Properties

Property code	Value	Unit	Source
gf	366.02	kJ/mol	Joback Method
hf	222.51	kJ/mol	Joback Method
hfus	22.33	kJ/mol	Joback Method
hvap	64.38	kJ/mol	Joback Method
log10ws	-2.54		Crippen Method
logp	2.004		Crippen Method
mcvol	128.500	ml/mol	McGowan Method
pc	4339.67	kPa	Joback Method
tb	628.88	K	Joback Method
tc	886.31	K	Joback Method
tf	453.14	K	Joback Method
vc	0.468	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	313.89	J/mol×K	628.88	Joback Method
cpg	325.88	J/mol×K	671.78	Joback Method
cpg	336.89	J/mol×K	714.69	Joback Method
cpg	347.01	J/mol×K	757.59	Joback Method
cpg	356.34	J/mol×K	800.50	Joback Method
cpg	364.95	J/mol×K	843.40	Joback Method
cpg	372.95	J/mol×K	886.31	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C771971&Units=SI
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

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