N-Phenyl-4-piperidinamine

Other names:	4-Piperidinamine, N-phenyl- Despropionyl norfentanyl Piperidine, 4-anilino- N-phenylpiperidin-4-amine
Inchi:	InChI=1S/C11H16N2/c1-2-4-10(5-3-1)13-11-6-8-12-9-7-11/h1-5,11-13H,6-9H2
InchiKey:	LKRMTUUCKBQGFO-UHFFFAOYSA-N
Formula:	C11H16N2
SMILES:	c1ccc(NC2CCNCC2)cc1
Mol. weight [g/mol]:	176.26
CAS:	23056-29-3

Physical Properties

Property code	Value	Unit	Source
gf	355.70	kJ/mol	Joback Method
hf	111.76	kJ/mol	Joback Method
hfus	24.81	kJ/mol	Joback Method
hvap	55.98	kJ/mol	Joback Method
log10ws	-2.35		Crippen Method
logp	1.851		Crippen Method
mcvol	151.190	ml/mol	McGowan Method
pc	3460.21	kPa	Joback Method
tb	596.03	K	Joback Method
tc	843.94	K	Joback Method
tf	405.22	K	Joback Method
vc	0.548	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	385.70	J/mol×K	596.03	Joback Method
cpg	405.27	J/mol×K	637.35	Joback Method
cpg	423.40	J/mol×K	678.67	Joback Method
cpg	440.14	J/mol×K	719.98	Joback Method
cpg	455.56	J/mol×K	761.30	Joback Method

cpg	469.71	J/mol×K	802.62	Joback Method
cpg	482.64	J/mol×K	843.94	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C23056293&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

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