

N-benzyl-N-phenylhydrazine

Other names:	Hydrazine, 1-phenyl-1-(phenylmethyl)-
Inchi:	InChI=1S/C13H14N2/c14-15(13-9-5-2-6-10-13)11-12-7-3-1-4-8-12/h1-10H,11,14H2
InchiKey:	SQMOOVFBFVTTGF-UHFFFAOYSA-N
Formula:	C13H14N2
SMILES:	NN(Cc1ccccc1)c1ccccc1
Mol. weight [g/mol]:	198.26
CAS:	614-31-3

Physical Properties

Property code	Value	Unit	Source
gf	460.63	kJ/mol	Joback Method
hf	262.73	kJ/mol	Joback Method
hfus	25.73	kJ/mol	Joback Method
hvap	61.77	kJ/mol	Joback Method
log10ws	-3.49		Crippen Method
logp	2.567		Crippen Method
mcvol	166.470	ml/mol	McGowan Method
pc	3269.04	kPa	Joback Method
tb	635.17	K	Joback Method
tc	882.69	K	Joback Method
tf	404.84	K	Joback Method
vc	0.595	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	422.12	J/mol×K	635.17	Joback Method
cpg	438.51	J/mol×K	676.42	Joback Method
cpg	453.52	J/mol×K	717.68	Joback Method
cpg	467.24	J/mol×K	758.93	Joback Method
cpg	479.77	J/mol×K	800.18	Joback Method
cpg	491.21	J/mol×K	841.43	Joback Method
cpg	501.67	J/mol×K	882.69	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	480.50 ± 0.50	K	1.30	NIST Webbook

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=C614313&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
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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