

Hydrazine, 1-methyl-1-phenyl-

Other names:	«alpha»-Methyl-«alpha»-phenylhydrazine N-Methyl-N-phenylhydrazine N-Phenyl-N-methylhydrazine 1-Methyl-1-phenylhydrazine 1-Methylphenylhydrazine «alpha»-Methylphenylhydrazine
Inchi:	InChI=1S/C7H10N2/c1-9(8)7-5-3-2-4-6-7/h2-6H,8H2,1H3
InchiKey:	MWOODERJGVWYJE-UHFFFAOYSA-N
Formula:	C7H10N2
SMILES:	CN(N)c1ccccc1
Mol. weight [g/mol]:	122.17
CAS:	618-40-6

Physical Properties

Property code	Value	Unit	Source
chl	-4366.00	kJ/mol	NIST Webbook
chl	-4331.30 ± 1.10	kJ/mol	NIST Webbook
gf	297.70	kJ/mol	Joback Method
hf	210.80 ± 1.70	kJ/mol	NIST Webbook
hf	245.20	kJ/mol	NIST Webbook
hfl	182.00	kJ/mol	NIST Webbook
hfl	147.60 ± 1.20	kJ/mol	NIST Webbook
hfus	16.14	kJ/mol	Joback Method
hvap	63.20	kJ/mol	NIST Webbook
hvap	63.19 ± 0.68	kJ/mol	NIST Webbook
ie	7.43	eV	NIST Webbook
log10ws	-1.39		Crippen Method
logp	0.997		Crippen Method
mcvol	105.690	ml/mol	McGowan Method
pc	4420.84	kPa	Joback Method
tb	471.21	K	Joback Method
tc	694.49	K	Joback Method
tf	310.80	K	Joback Method
vc	0.366	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	218.39	J/mol×K	471.21	Joback Method
cpg	231.33	J/mol×K	508.42	Joback Method
cpg	243.38	J/mol×K	545.64	Joback Method
cpg	254.58	J/mol×K	582.85	Joback Method
cpg	264.99	J/mol×K	620.06	Joback Method
cpg	274.64	J/mol×K	657.28	Joback Method
cpg	283.58	J/mol×K	694.49	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	327.70	K	0.04	NIST Webbook

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C618406&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method

Legend

chl:	Standard liquid enthalpy of combustion
cpg:	Ideal gas heat capacity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfl:	Liquid phase enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions

ie:	Ionization energy
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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