Hydrazine, 1,1-dibutyl-

Other names:	1,1-DBH
	1,1-Di-n-butylhydrazine
	1,1-Dibutylhydrazine
	N,N-Dibutylhydrazine
Inchi:	InChI=1S/C8H20N2/c1-3-5-7-10(9)8-6-4-2/h3-9H2,1-2H3
InchiKey:	DJTIANXYHUNHQV-UHFFFAOYSA-N
Formula:	C8H20N2
SMILES:	CCCCN(N)CCCC
Mol. weight [g/mol]:	144.26
CAS:	7422-80-2

Physical Properties

Property code	Value	Unit	Source
gf	193.71	kJ/mol	Joback Method
hf	-107.13	kJ/mol	Joback Method
hfus	24.69	kJ/mol	Joback Method
hvap	46.09	kJ/mol	Joback Method
ie	7.47 ± 0.05	eV	NIST Webbook
ie	7.75 ± 0.05	eV	NIST Webbook
log10ws	-2.17		Crippen Method
logp	1.762		Crippen Method
mcvol	143.540	ml/mol	McGowan Method
pc	2681.86	kPa	Joback Method
tb	467.41	K	Joback Method
tc	642.94	K	Joback Method
tf	295.65	K	Joback Method
vc	0.530	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	324.85	J/mol×K	467.41	Joback Method
cpg	339.33	J/mol×K	496.67	Joback Method
cpg	353.17	J/mol×K	525.92	Joback Method

cpg	366.40	J/mol×K	555.18	Joback Method
cpg	379.04	J/mol×K	584.43	Joback Method
cpg	391.11	J/mol×K	613.69	Joback Method
cpg	402.62	J/mol×K	642.94	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.62135e+01
Coeff. B	-4.22869e+03
Coeff. C	-6.08030e+01
Temperature range (K), min.	326.33
Temperature range (K), max.	448.68

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C7422802&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
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
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient

mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
pvap:	Vapor pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume