Hydrazinecarboxylic acid, phenylmethyl ester

Other names:	Carbobenzoxyhydrazide
	Benzyl carbazate
	((Benzyloxy)carbonyl)hydrazine
	Benzyloxycarbonyl hydrazide
	Carbazic acid, benzyl ester
Inchi:	InChI=1S/C8H10N2O2/c9-10-8(11)12-6-7-4-2-1-3-5-7/h1-5H,6,9H2,(H,10,11)
InchiKey:	RXUBZLMIGSAPEJ-UHFFFAOYSA-N
Formula:	C8H10N2O2
SMILES:	NNC(=O)OCc1ccccc1
Mol. weight [g/mol]:	166.18
CAS:	5331-43-1

Physical Properties

Property code	Value	Unit	Source
gf	50.81	kJ/mol	Joback Method
hf	-129.46	kJ/mol	Joback Method
hfus	23.60	kJ/mol	Joback Method
hvap	61.91	kJ/mol	Joback Method
log10ws	-2.22		Crippen Method
logp	0.787		Crippen Method
mcvol	127.220	ml/mol	McGowan Method
pc	4222.04	kPa	Joback Method
tb	608.11	K	Joback Method
tc	836.48	K	Joback Method
tf	414.42	K	Joback Method
vc	0.464	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	310.24	J/mol×K	608.11	Joback Method
cpg	321.78	J/mol×K	646.17	Joback Method
cpg	332.52	J/mol×K	684.23	Joback Method
cpg	342.49	J/mol×K	722.30	Joback Method

cpg	351.71	J/mol×K	760.36	Joback Method
cpg	360.20	J/mol×K	798.42	Joback Method
cpg	367.99	J/mol×K	836.48	Joback Method

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C5331431&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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