

4-Chlorobenzoic acid hydrazide

Other names:	4-Chlorobenzhydrazide p-Chlorobenzhydrazide Benzoic acid, 4-chloro-, hydrazide p-Chlorobenzohydrazide p-Chlorobenzoic acid, hydrazide p-Chlorobenzoic hydrazide p-Chlorobenzoyl hydrazide p-Chlorobenzoylhydrazine Benzoic acid, p-chloro-, hydrazide 4-Chlorobenzohydrazide 4-Chlorobenzoyl hydrazide 4-Chlorobenzoylhydrazine NSC 54990
Inchi:	InChI=1S/C7H7ClN2O/c8-6-3-1-5(2-4-6)7(11)10-9/h1-4H,9H2,(H,10,11)
InchiKey:	PKBGHORNUFQAAW-UHFFFAOYSA-N
Formula:	C7H7ClN2O
SMILES:	<chem>NNC(=O)c1ccc(Cl)cc1</chem>
Mol. weight [g/mol]:	170.60
CAS:	536-40-3

Physical Properties

Property code	Value	Unit	Source
gf	125.83	kJ/mol	Joback Method
hf	-3.81	kJ/mol	Joback Method
hfus	23.63	kJ/mol	Joback Method
hvap	62.32	kJ/mol	Joback Method
log10ws	-2.51		Crippen Method
logp	0.944		Crippen Method
mcvol	119.500	ml/mol	McGowan Method
pc	4577.74	kPa	Joback Method
tb	605.22	K	Joback Method
tc	846.26	K	Joback Method
tf	423.36	K	Joback Method
vc	0.439	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	263.12	J/mol×K	605.22	Joback Method
cpg	272.72	J/mol×K	645.39	Joback Method
cpg	281.57	J/mol×K	685.57	Joback Method
cpg	289.71	J/mol×K	725.74	Joback Method
cpg	297.17	J/mol×K	765.91	Joback Method
cpg	303.98	J/mol×K	806.08	Joback Method
cpg	310.20	J/mol×K	846.26	Joback Method
hfust	32.90	kJ/mol	437.20	NIST Webbook

Sources

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
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C536403&Units=SI

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
hfust:	Enthalpy of fusion at a given temperature
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

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