3-Methylsalicylhydrazide

Other names: 2-Hydroxy-3-methylbenzhydrazide
Inchi: InChI=1S/C8H10N2O2/c1-5-3-2-4-6(7(5)11)8(12)10-9/h2-4,11H,9H2,1H3,(H,10,12)
InchiKey: UWNTVIWGDXKENJ-UHFFFAOYSA-N
Formula: C8H10N2O2
SMILES: Cc1cccc(C(=O)NN)c1O
Mol. weight [g/mol]: 166.18
CAS: 30991-42-5

Physical Properties

Property code	Value	Unit	Source
gf	-8.44	kJ/mol	Joback Method
hf	-186.02	kJ/mol	Joback Method
hfus	27.81	kJ/mol	Joback Method
hvap	73.18	kJ/mol	Joback Method
log10ws	-1.85		Crippen Method
logp	0.304		Crippen Method
mcvol	127.220	ml/mol	McGowan Method
pc	5190.64	kPa	Joback Method
tb	671.29	K	Joback Method
tc	912.67	K	Joback Method
tf	516.43	K	Joback Method
vc	0.411	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	329.09	J/mol×K	671.29	Joback Method
cpg	338.95	J/mol×K	711.52	Joback Method
cpg	348.12	J/mol×K	751.75	Joback Method
cpg	356.68	J/mol×K	791.98	Joback Method
cpg	364.74	J/mol×K	832.21	Joback Method
cpg	372.37	J/mol×K	872.44	Joback Method
cpg	379.66	J/mol×K	912.67	Joback Method

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=C30991425&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
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume