Benzenesulfonic acid, p-hydrazino-

Other names: 4-hydrazinobenzenesulphonic acid
Inchi: InChI=1S/C6H8N2O3S/c7-8-5-1-3-6(4-2-5)12(9,10)11/h1-4,8H,7H2,(H,9,10,11)
InchiKey: IOMZCWUHFGMSEJ-UHFFFAOYSA-N
Formula: C6H8N2O3S
SMILES: NNc1ccc(S(=O)(=O)O)cc1
Mol. weight [g/mol]: 188.20
CAS: 98-71-5

Physical Properties

Property code	Value	Unit	Source
gf	-347.10	kJ/mol	Joback Method
hf	-460.43	kJ/mol	Joback Method
hfus	30.71	kJ/mol	Joback Method
hvap	84.28	kJ/mol	Joback Method
log10ws	-1.08		Crippen Method
logp	0.219		Crippen Method
mcvol	125.560	ml/mol	McGowan Method
pc	7418.83	kPa	Joback Method
tb	631.00	K	Joback Method
tc	838.04	K	Joback Method
tf	431.62	K	Joback Method
vc	0.472	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	304.60	J/mol×K	631.00	Joback Method
cpg	313.50	J/mol×K	665.51	Joback Method
cpg	321.77	J/mol×K	700.01	Joback Method
cpg	329.42	J/mol×K	734.52	Joback Method
cpg	336.44	J/mol×K	769.03	Joback Method
cpg	342.86	J/mol×K	803.53	Joback Method
cpg	348.67	J/mol×K	838.04	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C98715&Units=SI
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
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