P-chlorobenzene sulfonic acid, p-chlorophenyl hydrazide

Inchi: InChI=1S/C12H10Cl2N2O2S/c13-9-1-5-11(6-2-9)15-16-19(17,18)12-7-3-10(14)4-8-12/h1

InchiKey: QIDCLOWSJZPMFC-UHFFFAOYSA-N

Formula: C12H10Cl2N2O2S

SMILES: O=S(=O)(NNc1ccc(Cl)cc1)c1ccc(Cl)cc1

Mol. weight [g/mol]: 317.19

CAS: 19957-45-0

Physical Properties

Property code	Value	Unit	Source
gf	-57.90	kJ/mol	Joback Method
hf	-218.78	kJ/mol	Joback Method
hfus	44.11	kJ/mol	Joback Method
hvap	88.46	kJ/mol	Joback Method
log10ws	-4.53		Crippen Method
logp	3.299		Crippen Method
mcvol	204.950	ml/mol	McGowan Method
pc	3759.17	kPa	Joback Method
tb	760.26	K	Joback Method
tc	1000.88	K	Joback Method
tf	506.60	K	Joback Method
vc	0.785	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	504.00	J/mol×K	760.26	Joback Method
cpg	515.32	J/mol×K	800.36	Joback Method
cpg	525.45	J/mol×K	840.47	Joback Method
cpg	534.44	J/mol×K	880.57	Joback Method
cpg	542.33	J/mol×K	920.68	Joback Method
cpg	549.15	J/mol×K	960.78	Joback Method
cpg	554.96	J/mol×K	1000.88	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=C19957450&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