N'-phenylbenzenesulfonohydrazide

Inchi: InChI=1S/C12H12N2O2S/c15-17(16,12-9-5-2-6-10-12)14-13-11-7-3-1-4-8-11/h1-10,13-1
InchiKey: NLEOEXCPIKOHJB-UHFFFAOYSA-N
Formula: C12H12N2O2S
SMILES: O=S(=O)(NNc1ccccc1)c1ccccc1
Mol. weight [g/mol]: 248.30
CAS: 6596-69-6

Physical Properties

Property code	Value	Unit	Source
gf	-14.78	kJ/mol	Joback Method
hf	-164.36	kJ/mol	Joback Method
hfus	36.49	kJ/mol	Joback Method
hvap	78.37	kJ/mol	Joback Method
log10ws	-3.16		Crippen Method
logp	1.992		Crippen Method
mcvol	180.470	ml/mol	McGowan Method
pc	4288.66	kPa	Joback Method
tb	675.44	K	Joback Method
tc	909.56	K	Joback Method
tf	421.72	K	Joback Method
vc	0.688	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	460.02	J/mol×K	675.44	Joback Method
cpg	474.48	J/mol×K	714.46	Joback Method
cpg	487.65	J/mol×K	753.48	Joback Method
cpg	499.59	J/mol×K	792.50	Joback Method
cpg	510.34	J/mol×K	831.52	Joback Method
cpg	519.96	J/mol×K	870.54	Joback Method
cpg	528.49	J/mol×K	909.56	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C6596696&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

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