1,2-Diphenyl sulfonyl hydrazine

Inchi: InChI=1S/C12H12N2O4S2/c15-19(16,11-7-3-1-4-8-11)13-14-20(17,18)12-9-5-2-6-10-12/
InchiKey: VWSUQBGPNFFSLB-UHFFFAOYSA-N
Formula: C12H12N2O4S2
SMILES: O=S(=O)(NNS(=O)(=O)c1ccccc1)c1ccccc1
Mol. weight [g/mol]: 312.37
CAS: 6272-36-2

Physical Properties

Property code	Value	Unit	Source
gf	-483.32	kJ/mol	Joback Method
hf	-617.71	kJ/mol	Joback Method
hfus	47.87	kJ/mol	Joback Method
hvap	97.00	kJ/mol	Joback Method
log10ws	-3.02		Crippen Method
logp	0.858		Crippen Method
mcvol	208.560	ml/mol	McGowan Method
pc	5312.41	kPa	Joback Method
tb	723.22	K	Joback Method
tc	947.83	K	Joback Method
tf	460.28	K	Joback Method
vc	0.814	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	545.48	J/mol×K	723.22	Joback Method
cpg	558.87	J/mol×K	760.65	Joback Method
cpg	570.91	J/mol×K	798.09	Joback Method
cpg	581.62	J/mol×K	835.52	Joback Method
cpg	591.03	J/mol×K	872.96	Joback Method
cpg	599.17	J/mol×K	910.39	Joback Method
cpg	606.06	J/mol×K	947.83	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C6272362&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