Disulfide, bis(2-nitrophenyl)

Other names:	Disulfide, bis(o-nitrophenyl)
	O,O'-Dinitrodiphenyl disulfide
	Bis(o-nitrophenyl) disulfide
	Bis(2-nitrophenyl) disulfide
	2,2'-Dinitrodiphenyl disulfide
	2-Nitrophenyl disulfide
	o-Nitrophenyl disulfide
	NSC 203
	bis(2-nitrophenyl) disulphide
Inchi:	InChI=1S/C12H8N2O4S2/c15-13(16)9-5-1-3-7-11(9)19-20-12-8-4-2-6-10(12)14(17)18/h1
InchiKey:	NXCKJENHTITELM-UHFFFAOYSA-N
Formula:	C12H8N2O4S2
SMILES:	O=[N+]([O-])c1ccccc1SSc1ccccc1[N+](=O)[O-]
Mol. weight [g/mol]:	308.33
CAS:	1155-00-6

Physical Properties

Property code	Value	Unit	Source
gf	393.06	kJ/mol	Joback Method
hf	221.33	kJ/mol	Joback Method
hfus	45.12	kJ/mol	Joback Method
hvap	95.00	kJ/mol	Joback Method
log10ws	-6.06		Crippen Method
logp	4.302		Crippen Method
mcvol	199.960	ml/mol	McGowan Method
pc	3543.08	kPa	Joback Method
tb	978.52	K	Joback Method
tc	1295.96	K	Joback Method
tf	658.90	K	Joback Method
vc	0.763	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source

cpg	537.82	J/mol×K	978.52	Joback Method
cpg	545.01	J/mol×K	1031.43	Joback Method
cpg	550.69	J/mol×K	1084.33	Joback Method
cpg	554.95	J/mol×K	1137.24	Joback Method
cpg	557.90	J/mol×K	1190.15	Joback Method
cpg	559.65	J/mol×K	1243.05	Joback Method
cpg	560.29	J/mol×K	1295.96	Joback Method

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C1155006&Units=SI

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