Benzenesulfonamide, N,N-dimethyl-

Other names:	Benzenesulfonic dimethylamide
	N,N-Dimethylbenzenesulfonamide
	N,N-dimethylbenzenesulphamide
Inchi:	InChI=1S/C8H11NO2S/c1-9(2)12(10,11)8-6-4-3-5-7-8/h3-7H,1-2H3
InchiKey:	BVSPJPNNLDIUFE-UHFFFAOYSA-N
Formula:	C8H11NO2S
SMILES:	CN(C)S(=O)(=O)c1ccccc1
Mol. weight [g/mol]:	185.24
CAS:	14417-01-7

Physical Properties

Property code	Value	Unit	Source
gf	-228.87	kJ/mol	Joback Method
hf	-357.74	kJ/mol	Joback Method
hfus	24.92	kJ/mol	Joback Method
hvap	56.36	kJ/mol	Joback Method
log10ws	-1.14		Crippen Method
logp	0.937		Crippen Method
mcvol	137.890	ml/mol	McGowan Method
pc	4432.62	kPa	Joback Method
rinpol	1548.00		NIST Webbook
rinpol	1595.00		NIST Webbook
rinpol	280.40		NIST Webbook
rinpol	280.40		NIST Webbook
rinpol	1548.00		NIST Webbook
tb	469.34	K	Joback Method
tc	670.37	K	Joback Method
tf	277.37	K	Joback Method
vc	0.519	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	280.45	J/mol×K	469.34	Joback Method

cpg	294.72	J/mol×K	502.85	Joback Method
cpg	308.17	J/mol×K	536.35	Joback Method
cpg	320.82	J/mol×K	569.86	Joback Method
cpg	332.70	J/mol×K	603.36	Joback Method
cpg	343.82	J/mol×K	636.87	Joback Method
cpg	354.19	J/mol×K	670.37	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=C14417017&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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume