Methanesulfonamide, N,N-dimethyl-

Other names:	N,N-Dimethylmethanesulfonamide
	N,N-dimethylmethanesulphonamide
Inchi:	InChI=1S/C3H9NO2S/c1-4(2)7(3,5)6/h1-3H3
InchiKey:	WCFDSGHAIGTEKL-UHFFFAOYSA-N
Formula:	C3H9NO2S
SMILES:	CN(C)S(C)(=O)=O
Mol. weight [g/mol]:	123.17
CAS:	918-05-8

Physical Properties

Property code	Value	Unit	Source
gf	-383.38	kJ/mol	Joback Method
hf	-491.07	kJ/mol	Joback Method
hfus	17.93	kJ/mol	Joback Method
hvap	42.95	kJ/mol	Joback Method
log10ws	0.53		Crippen Method
logp	-0.492		Crippen Method
mcvol	91.200	ml/mol	McGowan Method
pc	5462.66	kPa	Joback Method
tb	328.26	K	Joback Method
tc	489.74	K	Joback Method
tf	194.60	K	Joback Method
vc	0.347	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	149.10	J/mol×K	328.26	Joback Method
cpg	157.67	J/mol×K	355.17	Joback Method
cpg	165.97	J/mol×K	382.09	Joback Method
cpg	174.00	J/mol×K	409.00	Joback Method
cpg	181.75	J/mol×K	435.92	Joback Method
cpg	189.24	J/mol×K	462.83	Joback Method
cpg	196.45	J/mol×K	489.74	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	392.50 ± 0.50	K	2.30	NIST Webbook

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=C918058&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
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume