Methane sulfonamide

Other names:	Methylsulfonamide
	methanesulphonamide
Inchi:	InChI=1S/CH5NO2S/c1-5(2,3)4/h1H3,(H2,2,3,4)
InchiKey:	HNQIVZYLYMDVSB-UHFFFAOYSA-N
Formula:	CH5NO2S
SMILES:	CS(N)(=O)=O
Mol. weight [g/mol]:	95.12
CAS:	3144-09-0

Physical Properties

Property code	Value	Unit	Source
gf	-444.55	kJ/mol	Joback Method
hf	-483.53	kJ/mol	Joback Method
hfus	14.92	kJ/mol	Joback Method
hvap	47.10	kJ/mol	Joback Method
log10ws	0.50		Crippen Method
logp	-1.095		Crippen Method
mcvol	63.020	ml/mol	McGowan Method
pc	8234.49	kPa	Joback Method
tb	342.59	K	Joback Method
tc	523.91	K	Joback Method
tf	222.85	K	Joback Method
vc	0.246	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	105.22	J/mol×K	342.59	Joback Method
cpg	110.31	J/mol×K	372.81	Joback Method
cpg	115.29	J/mol×K	403.03	Joback Method
cpg	120.13	J/mol×K	433.25	Joback Method
cpg	124.84	J/mol×K	463.47	Joback Method
cpg	129.39	J/mol×K	493.69	Joback Method
cpg	133.80	J/mol×K	523.91	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=C3144090&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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

Latest version available from:
https://www.chemeo.com/cid/11-110-6/Methane-sulfonamide.pdf
Generated by Cheméo on 2024-10-12 02:22:49.980982429 +0000 UTC m=+3280632.617951741.
Cheméo (https://www.chemeo.com) is the biggest free database of chemical and physical data for the process industry.