

N,N,N',N'-Tetramethylsulfonamide

Other names:	N,N,N',N'-tetramethylsulfamide Sulfamide, tetramethyl- Sulfonyldimethyldiamide Tetramethylsulfamide
Inchi:	InChI=1S/C4H12N2O2S/c1-5(2)9(7,8)6(3)4/h1-4H3
InchiKey:	WIOVVBR SQYYSMV-UHFFFAOYSA-N
Formula:	C4H12N2O2S
SMILES:	CN(C)S(=O)(=O)N(C)C
Mol. weight [g/mol]:	152.22
CAS:	3768-63-6

Physical Properties

Property code	Value	Unit	Source
gf	-264.18	kJ/mol	Joback Method
hf	-444.18	kJ/mol	Joback Method
hfus	23.54	kJ/mol	Joback Method
hvap	47.22	kJ/mol	Joback Method
log10ws	0.55		Crippen Method
logp	-0.646		Crippen Method
mcvol	115.270	ml/mol	McGowan Method
pc	4749.69	kPa	Joback Method
tb	363.58	K	Joback Method
tc	524.61	K	Joback Method
tf	238.34	K	Joback Method
vc	0.421	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	260.62	J/molxK	497.77	Joback Method
cpg	208.58	J/molxK	363.58	Joback Method
cpg	219.83	J/molxK	390.42	Joback Method
cpg	230.66	J/molxK	417.26	Joback Method
cpg	241.06	J/molxK	444.10	Joback Method

cpg	251.05	J/mol×K	470.94	Joback Method
cpg	269.79	J/mol×K	524.61	Joback Method
hvapt	53.20	kJ/mol	426.50	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.97976e+01
Coeff. B	-8.37441e+03
Coeff. C	5.35500e+01
Temperature range (K), min.	358.00
Temperature range (K), max.	524.55

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C3768636&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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

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
hvapt:	Enthalpy of vaporization at a given temperature
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mvol:	McGowan's characteristic volume

pc:	Critical Pressure
pvap:	Vapor pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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