

N,N-Dimethylformamide diethylacetal

Other names:	1,1-Diethoxy trimethyl amine Methanamine, 1,1-diethoxy-N,N-dimethyl- 1,1-Diethoxy-N,N-dimethylmethanamine
Inchi:	InChI=1S/C7H17NO2/c1-5-9-7(8(3)4)10-6-2/h7H,5-6H2,1-4H3
InchiKey:	BWKAYBPLDRWMCJ-UHFFFAOYSA-N
Formula:	C7H17NO2
SMILES:	CCOC(OCC)N(C)C
Mol. weight [g/mol]:	147.22
CAS:	1188-33-6

Physical Properties

Property code	Value	Unit	Source
gf	-93.60	kJ/mol	Joback Method
hf	-390.00	kJ/mol	Joback Method
hfus	15.76	kJ/mol	Joback Method
hvap	37.65	kJ/mol	Joback Method
log10ws	-0.60		Crippen Method
logp	0.905		Crippen Method
mcvol	131.210	ml/mol	McGowan Method
pc	2718.33	kPa	Joback Method
tb	404.70	K	NIST Webbook
tc	583.60	K	Joback Method
tf	230.58	K	Joback Method
vc	0.475	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	271.56	J/mol×K	416.40	Joback Method
cpg	284.27	J/mol×K	444.27	Joback Method
cpg	296.59	J/mol×K	472.13	Joback Method
cpg	308.52	J/mol×K	500.00	Joback Method
cpg	320.05	J/mol×K	527.86	Joback Method
cpg	331.20	J/mol×K	555.73	Joback Method

Sources

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=C1188336&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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

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