Dimethylaminoacetaldehyde dimethyl acetal

Other names: Ethanamine, 2,2-dimethoxy-N,N-dimethyl-
2,2-Dimethoxy-N,N-dimethylethanamine
2,2-dimethoxyethyl(dimethyl)amine
Inchi: InChI=1S/C6H15NO2/c1-7(2)5-6(8-3)9-4/h6H,5H2,1-4H3
InchiKey: HUYAEQCJNXODLQ-UHFFFAOYSA-N
Formula: C6H15NO2
SMILES: COC(CN(C)C)OC
Mol. weight [g/mol]: 133.19
CAS: 38711-20-5

Physical Properties

Property code	Value	Unit	Source
gf	-102.02	kJ/mol	Joback Method
hf	-369.36	kJ/mol	Joback Method
hfus	13.17	kJ/mol	Joback Method
hvap	35.42	kJ/mol	Joback Method
log10ws	0.31		Crippen Method
logp	0.167		Crippen Method
mcvol	117.120	ml/mol	McGowan Method
pc	3012.33	kPa	Joback Method
tb	393.52	K	Joback Method
tc	561.37	K	Joback Method
tf	219.31	K	Joback Method
vc	0.419	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	232.06	J/mol×K	393.52	Joback Method
cpg	243.55	J/mol×K	421.49	Joback Method
cpg	254.72	J/mol×K	449.47	Joback Method
cpg	265.55	J/mol×K	477.44	Joback Method
cpg	276.05	J/mol×K	505.42	Joback Method
cpg	286.20	J/mol×K	533.39	Joback Method

cpg	296.02	J/mol×K	561.37	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	353.70	K	14.90	NIST Webbook

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=C38711205&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
tbrp: Boiling point at reduced pressure
tc: Critical Temperature
tf: Normal melting (fusion) point
vc: Critical Volume

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