Aminoacetaldehyde dimethyl acetal

Other names:	Ethanamine, 2,2-dimethoxy-
	Acetaldehyde, amino-, dimethyl acetal
	2,2-Dimethoxyethanamine
	2,2-Dimethoxyethylamine
Inchi:	InChI=1S/C4H11NO2/c1-6-4(3-5)7-2/h4H,3,5H2,1-2H3
InchiKey:	QKWWDTYDYOFRJL-UHFFFAOYSA-N
Formula:	C4H11NO2
SMILES:	COC(CN)OC
Mol. weight [g/mol]:	105.14
CAS:	22483-09-6

Physical Properties

Property code	Value	Unit	Source
gf	-163.19	kJ/mol	Joback Method
hf	-361.82	kJ/mol	Joback Method
hfus	10.17	kJ/mol	Joback Method
hvap	39.57	kJ/mol	Joback Method
log10ws	0.29		Crippen Method
logp	-0.436		Crippen Method
mcvol	88.940	ml/mol	McGowan Method
pc	4051.80	kPa	Joback Method
tb	409.00	K	NIST Webbook
tc	594.18	K	Joback Method
tf	247.56	K	Joback Method
vc	0.319	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	180.40	J/mol×K	407.85	Joback Method
cpg	188.96	J/mol×K	438.90	Joback Method
cpg	197.34	J/mol×K	469.96	Joback Method
cpg	205.51	J/mol×K	501.01	Joback Method
cpg	213.46	J/mol×K	532.07	Joback Method

cpg	221.18	J/mol×K	563.12	Joback Method
cpg	228.66	J/mol×K	594.18	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	410.20	K	13.00	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=C22483096&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