Methanamine, 1,1-bis(2,2-dimethylpropoxy)-N,N-dimethyl-

Other names: N,N-Dimethylformamide dineopentyl acetal
1,1-bis(2,2-dimethylpropoxy)-N,N,N-trimethylamine
Inchi: InChI=1S/C13H29NO2/c1-12(2,3)9-15-11(14(7)8)16-10-13(4,5)6/h11H,9-10H2,1-8H3
InchiKey: KEXFRBIOHPDZQM-UHFFFAOYSA-N
Formula: C13H29NO2
SMILES: CN(C)C(OCC(C)(C)C)OCC(C)(C)C
Mol. weight [g/mol]: 231.37
CAS: 4909-78-8

Physical Properties

Property code	Value	Unit	Source
gf	-37.40	kJ/mol	Joback Method
hf	-531.34	kJ/mol	Joback Method
hfus	16.47	kJ/mol	Joback Method
hvap	48.42	kJ/mol	Joback Method
log10ws	-2.63		Crippen Method
logp	2.957		Crippen Method
mcvol	215.750	ml/mol	McGowan Method
pc	1657.84	kPa	Joback Method
tb	547.22	K	Joback Method
tc	726.23	K	Joback Method
tf	303.04	K	Joback Method
vc	0.789	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	557.71	J/mol×K	547.22	Joback Method
cpg	577.47	J/mol×K	577.06	Joback Method
cpg	596.25	J/mol×K	606.89	Joback Method
cpg	614.08	J/mol×K	636.73	Joback Method
cpg	631.01	J/mol×K	666.56	Joback Method
cpg	647.06	J/mol×K	696.40	Joback Method
cpg	662.27	J/mol×K	726.23	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	359.20	K	1.30	NIST Webbook
tbrp	348.60	K	0.70	NIST Webbook

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C4909788&Units=SI
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

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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