Ethyl N,N-dimethyloxamate

Other names:	Acetic acid, (dimethylamino)oxo-, ethyl ester
	N,N-Dimethyl ethyl oxamate
	Oxamic acid, dimethyl-, ethyl ester
	ethyl (dimethylamino)oxoacetate
Inchi:	InChI=1S/C6H11NO3/c1-4-10-6(9)5(8)7(2)3/h4H2,1-3H3
InchiKey:	HMALWDVRMHVUAW-UHFFFAOYSA-N
Formula:	C6H11NO3
SMILES:	CCOC(=O)C(=O)N(C)C
Mol. weight [g/mol]:	145.16
CAS:	16703-52-9

Physical Properties

Property code	Value	Unit	Source
gf	-252.42	kJ/mol	Joback Method
hf	-457.02	kJ/mol	Joback Method
hfus	18.70	kJ/mol	Joback Method
hvap	46.89	kJ/mol	Joback Method
ie	9.31	eV	NIST Webbook
log10ws	0.46		Crippen Method
logp	-0.362		Crippen Method
mcvol	114.390	ml/mol	McGowan Method
pc	3513.74	kPa	Joback Method
tb	479.28	K	Joback Method
tc	665.93	K	Joback Method
tf	311.94	K	Joback Method
vc	0.419	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	245.69	J/mol×K	479.28	Joback Method
cpg	256.04	J/mol×K	510.39	Joback Method
cpg	265.94	J/mol×K	541.50	Joback Method
cpg	275.41	J/mol×K	572.61	Joback Method

cpg	284.44	J/mol×K	603.72	Joback Method
cpg	293.05	J/mol×K	634.82	Joback Method
cpg	301.23	J/mol×K	665.93	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	402.50 ± 0.50	K	2.70	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=C16703529&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
ie: Ionization energy
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