Acetaldehyde, methoxy-

Other names:	Methoxyacetaldehyde
	Acetaldehyde, 2-methoxy-
	«alpha»-Methoxyacetaldehyde
	2-Methoxyacetaldehyde
	Methoxyethanal
Inchi:	InChI=1S/C3H6O2/c1-5-3-2-4/h2H,3H2,1H3
InchiKey:	YSEFYOVWKJXNCH-UHFFFAOYSA-N
Formula:	C3H6O2
SMILES:	COCC=O
Mol. weight [g/mol]:	74.08
CAS:	10312-83-1

Physical Properties

Property code	Value	Unit	Source
gf	-230.14	kJ/mol	Joback Method
hf	-323.05	kJ/mol	Joback Method
hfus	7.00	kJ/mol	Joback Method
hvap	31.40	kJ/mol	Joback Method
log10ws	0.55		Crippen Method
logp	-0.168		Crippen Method
mcvol	60.570	ml/mol	McGowan Method
pc	4762.81	kPa	Joback Method
tb	365.50 ± 0.50	K	NIST Webbook
tc	513.09	K	Joback Method
tf	187.80	K	Joback Method
vc	0.238	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	101.20	J/mol×K	339.12	Joback Method
cpg	125.25	J/mol×K	484.09	Joback Method
cpg	120.65	J/mol×K	455.10	Joback Method
cpg	115.94	J/mol×K	426.10	Joback Method

cpg	111.13	J/mol×K	397.11	Joback Method
cpg	106.21	J/mol×K	368.11	Joback Method
cpg	129.73	J/mol×K	513.09	Joback Method
dvisc	0.0002646	Pa×s	339.12	Joback Method
dvisc	0.0003280	Pa×s	313.90	Joback Method
dvisc	0.0004223	Pa×s	288.68	Joback Method
dvisc	0.0005706	Pa×s	263.46	Joback Method
dvisc	0.0008217	Pa×s	238.24	Joback Method
dvisc	0.0012901	Pa×s	213.02	Joback Method
dvisc	0.0022862	Pa×s	187.80	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C10312831&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
dvisc:	Dynamic viscosity
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