

methanal-d

Inchi:	InChI=1S/CH2O/c1-2/h1H2/i1D
InchiKey:	WSFSSNUMVMOOMR-MICDWDOJSA-N
Formula:	CHDO
SMILES:	C=O
Mol. weight [g/mol]:	31.03
CAS:	1664-99-9

Physical Properties

Property code	Value	Unit	Source
gf	-89.60	kJ/mol	Joback Method
hf	-93.74	kJ/mol	Joback Method
hfus	2.32	kJ/mol	Joback Method
hvap	24.39	kJ/mol	Joback Method
log10ws	0.48		Crippen Method
logp	-0.185		Crippen Method
mcvol	26.520	ml/mol	McGowan Method
pc	6631.37	kPa	Joback Method
tb	270.24	K	Joback Method
tc	436.48	K	Joback Method
tf	159.40	K	Joback Method
vc	0.100	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	25.89	J/mol×K	270.24	Joback Method
cpg	27.86	J/mol×K	297.95	Joback Method
cpg	29.62	J/mol×K	325.65	Joback Method
cpg	31.19	J/mol×K	353.36	Joback Method
cpg	32.58	J/mol×K	381.07	Joback Method
cpg	33.80	J/mol×K	408.77	Joback Method
cpg	34.87	J/mol×K	436.48	Joback Method
dvisc	0.0001813	Pa×s	159.40	Joback Method
dvisc	0.0001652	Pa×s	177.87	Joback Method

dvisc	0.0001531	Pa×s	196.35	Joback Method
dvisc	0.0001438	Pa×s	214.82	Joback Method
dvisc	0.0001365	Pa×s	233.29	Joback Method
dvisc	0.0001304	Pa×s	251.77	Joback Method
dvisc	0.0001255	Pa×s	270.24	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C1664999&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

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