2-METHOXY-1,3-DIOXOLANE

Other names: 1,3-Dioxolane, 2-methoxy-
Inchi: InChI=1S/C4H8O3/c1-5-4-6-2-3-7-4/h4H,2-3H2,1H3
InchiKey: VRAYTNFBRROPJU-UHFFFAOYSA-N
Formula: C4H8O3
SMILES: COC1OCCO1
Mol. weight [g/mol]: 104.10

Physical Properties

Property code	Value	Unit	Source
chl	-2187.34 ± 0.89	kJ/mol	NIST Webbook
hf	-481.60 ± 5.30	kJ/mol	NIST Webbook
hf	-483.20 ± 1.10	kJ/mol	NIST Webbook
hfl	-530.01 ± 0.69	kJ/mol	NIST Webbook
hfl	-523.20 ± 3.30	kJ/mol	NIST Webbook
hfus	17.20	kJ/mol	Joback Method
hvap	41.60 ± 4.20	kJ/mol	NIST Webbook
hvap	41.60	kJ/mol	NIST Webbook
hvap	46.40 ± 0.80	kJ/mol	NIST Webbook
hvap	46.80	kJ/mol	NIST Webbook
hvap	46.80 ± 0.80	kJ/mol	NIST Webbook
logp	-0.037		Crippen Method
mcvol	73.970	ml/mol	McGowan Method
tb	402.70	K	NIST Webbook

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	143.15	J/mol×K	382.52	Joback Method
cpg	153.22	J/mol×K	415.81	Joback Method
cpg	162.90	J/mol×K	449.10	Joback Method
cpg	172.18	J/mol×K	482.39	Joback Method
cpg	181.07	J/mol×K	515.67	Joback Method
cpg	189.57	J/mol×K	548.96	Joback Method
cpg	197.67	J/mol×K	582.25	Joback Method

dvisc	0.0036835	Pa×s	221.11	Joback Method
dvisc	0.0020710	Pa×s	248.01	Joback Method
dvisc	0.0013033	Pa×s	274.91	Joback Method
dvisc	0.0008908	Pa×s	301.81	Joback Method
dvisc	0.0006479	Pa×s	328.72	Joback Method
dvisc	0.0004946	Pa×s	355.62	Joback Method
dvisc	0.0003921	Pa×s	382.52	Joback Method
hvapt	46.80 ± 0.80	kJ/mol	293.00	NIST Webbook

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Cheméo Relay (1.0):	
Cheméo Relay (1.0, beta):	
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C19693755&Units=SI
Joback Method:	https://en.wikipedia.org/wiki/Joback_method

Legend

chl:	Standard liquid enthalpy of combustion
cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
hf:	Enthalpy of formation at standard conditions
hfl:	Liquid phase enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
hvapt:	Enthalpy of vaporization at a given temperature
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
tb:	Normal Boiling Point Temperature