1,2-Propanediol, 3-methoxy-

Other names:	(.+-.)-3-methoxy-1,2-propanediol
	1-O-methyl-rac-glycerol
	3-methoxy-1,2-propanediol
	3-methoxypropane-1,2-diol
	DL-1,2-propanediol, 3-methoxy-
	Glycerin-«alpha»-monomethyl ether
	Glycerol 1-monomethyl ether
	NSC 6752
Inchi:	InChI=1S/C4H10O3/c1-7-3-4(6)2-5/h4-6H,2-3H2,1H3
InchiKey:	PSJBSUHYCGQTHZ-UHFFFAOYSA-N
Formula:	C4H10O3
SMILES:	COCC(O)CO
Mol. weight [g/mol]:	106.12
CAS:	623-39-2

Physical Properties

Property code	Value	Unit	Source
gf	-398.28	kJ/mol	Joback Method
hf	-567.85	kJ/mol	Joback Method
hfus	11.96	kJ/mol	Joback Method
hvap	59.88	kJ/mol	Joback Method
log10ws	0.78		Crippen Method
logp	-1.014		Crippen Method
mcvol	84.830	ml/mol	McGowan Method
pc	4910.80	kPa	Joback Method
rinpol	977.00		NIST Webbook
rinpol	977.00		NIST Webbook
tb	497.26	K	Joback Method
tc	658.88	K	Joback Method
tf	263.71	K	Joback Method
vc	0.309	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	193.62	J/mol×K	497.26	Joback Method
cpg	224.52	J/mol×K	631.94	Joback Method
cpg	218.76	J/mol×K	605.01	Joback Method
cpg	212.79	J/mol×K	578.07	Joback Method
cpg	206.61	J/mol×K	551.13	Joback Method
cpg	200.22	J/mol×K	524.20	Joback Method
cpg	230.06	J/mol×K	658.88	Joback Method
dvisc	0.0000872	Pa×s	497.26	Joback Method
dvisc	0.0001812	Pa×s	458.33	Joback Method
dvisc	0.0004316	Pa×s	419.41	Joback Method
dvisc	0.0012280	Pa×s	380.49	Joback Method
dvisc	0.0044333	Pa×s	341.56	Joback Method
dvisc	0.0222685	Pa×s	302.64	Joback Method
dvisc	0.1801305	Pa×s	263.71	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C623392&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Solubilities and Thermodynamic Properties of NH3 in Glycerin and its Derivatives:	https://www.doi.org/10.1021/acs.jced.8b01042
Joback Method:	https://en.wikipedia.org/wiki/Joback_method

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
rinpol:	Non-polar retention indices

tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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