

1,2-Ethanediol, monoformate

Other names:	Ethylene glycol, monoformate Glycol monoformate 2-Hydroxyethyl formate Ethanediol, monoformate
Inchi:	InChI=1S/C3H6O3/c4-1-2-6-3-5/h3-4H,1-2H2
InchiKey:	UKQJDWBNQNAJHB-UHFFFAOYSA-N
Formula:	C3H6O3
SMILES:	O=COCCO
Mol. weight [g/mol]:	90.08
CAS:	628-35-3

Physical Properties

Property code	Value	Unit	Source
gf	-366.96	kJ/mol	Joback Method
hf	-475.28	kJ/mol	Joback Method
hfus	11.09	kJ/mol	Joback Method
hvap	48.08	kJ/mol	Joback Method
log10ws	0.80		Crippen Method
logp	-0.848		Crippen Method
mcvol	66.440	ml/mol	McGowan Method
pc	5430.51	kPa	Joback Method
tb	431.30	K	Joback Method
tc	601.52	K	Joback Method
tf	248.62	K	Joback Method
vc	0.258	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	131.87	J/mol×K	431.30	Joback Method
cpg	136.82	J/mol×K	459.67	Joback Method
cpg	141.64	J/mol×K	488.04	Joback Method
cpg	146.32	J/mol×K	516.41	Joback Method
cpg	150.86	J/mol×K	544.78	Joback Method

cpg	155.26	J/mol×K	573.15	Joback Method
cpg	159.51	J/mol×K	601.52	Joback Method
dvisc	0.0250202	Pa×s	248.62	Joback Method
dvisc	0.0078993	Pa×s	279.07	Joback Method
dvisc	0.0031289	Pa×s	309.51	Joback Method
dvisc	0.0014630	Pa×s	339.96	Joback Method
dvisc	0.0007751	Pa×s	370.41	Joback Method
dvisc	0.0004523	Pa×s	400.85	Joback Method
dvisc	0.0002847	Pa×s	431.30	Joback Method

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=C628353&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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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