

2-Propanol, 1,3-dimethoxy-

Other names:	Glycerol 1,3-dimethyl ether 1,3-Dimethoxy-2-propanol
Inchi:	InChI=1S/C5H12O3/c1-7-3-5(6)4-8-2/h5-6H,3-4H2,1-2H3
InchiKey:	ZESKRVSPQJVIMH-UHFFFAOYSA-N
Formula:	C5H12O3
SMILES:	COCC(O)COC
Mol. weight [g/mol]:	120.15
CAS:	623-69-8

Physical Properties

Property code	Value	Unit	Source
gf	-358.04	kJ/mol	Joback Method
hf	-568.48	kJ/mol	Joback Method
hfus	11.65	kJ/mol	Joback Method
hvap	47.83	kJ/mol	Joback Method
log10ws	0.53		Crippen Method
logp	-0.360		Crippen Method
mvol	98.920	ml/mol	McGowan Method
pc	3754.57	kPa	Joback Method
tb	442.20	K	NIST Webbook
tc	615.86	K	Joback Method
tf	236.39	K	Joback Method
vc	0.364	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	212.77	J/molxK	450.38	Joback Method
cpg	221.14	J/molxK	477.96	Joback Method
cpg	229.29	J/molxK	505.54	Joback Method
cpg	237.24	J/molxK	533.12	Joback Method
cpg	244.97	J/molxK	560.70	Joback Method
cpg	252.47	J/molxK	588.28	Joback Method
cpg	259.75	J/molxK	615.86	Joback Method

dvisc	0.0441979	Paxs	236.39	Joback Method
dvisc	0.0094442	Paxs	272.06	Joback Method
dvisc	0.0028860	Paxs	307.72	Joback Method
dvisc	0.0011282	Paxs	343.38	Joback Method
dvisc	0.0005263	Paxs	379.05	Joback Method
dvisc	0.0002799	Paxs	414.72	Joback Method
dvisc	0.0001645	Paxs	450.38	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	361.20	K	5.30	NIST Webbook

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C623698&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
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
mccvol:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tbrp:	Boiling point at reduced pressure

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

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