

3,4-Furandiol, tetrahydro-, trans-

Other names:	1,4-Anhydro-l-threitol Tetrahydro-3,4-furandiol, trans trans-tetrahydrofuran-3,4-diol
Inchi:	InChI=1S/C4H8O3/c5-3-1-7-2-4(3)6/h3-6H,1-2H2
InchiKey:	SSYDTHANSGMJTP-UHFFFAOYSA-N
Formula:	C4H8O3
SMILES:	OC1COCC1O
Mol. weight [g/mol]:	104.10
CAS:	22554-74-1

Physical Properties

Property code	Value	Unit	Source
gf	-348.12	kJ/mol	Joback Method
hf	-522.21	kJ/mol	Joback Method
hfus	17.28	kJ/mol	Joback Method
hvap	62.31	kJ/mol	Joback Method
log10ws	0.77		Crippen Method
logp	-1.262		Crippen Method
mcvol	73.970	ml/mol	McGowan Method
pc	6103.52	kPa	Joback Method
tb	512.84	K	Joback Method
tc	694.58	K	Joback Method
tf	289.71	K	Joback Method
vc	0.259	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	182.39	J/molxK	512.84	Joback Method
cpg	219.82	J/molxK	664.29	Joback Method
cpg	213.09	J/molxK	634.00	Joback Method
cpg	205.99	J/molxK	603.71	Joback Method
cpg	198.51	J/molxK	573.42	Joback Method
cpg	190.65	J/molxK	543.13	Joback Method

cpg	226.18	J/molxK	694.58	Joback Method
dvisc	0.0001383	Paxs	512.84	Joback Method
dvisc	0.0002551	Paxs	475.65	Joback Method
dvisc	0.0005221	Paxs	438.46	Joback Method
dvisc	0.0012203	Paxs	401.28	Joback Method
dvisc	0.0033920	Paxs	364.09	Joback Method
dvisc	0.0118979	Paxs	326.90	Joback Method
dvisc	0.0575968	Paxs	289.71	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	393.20	K	2.10	NIST Webbook

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C22554741&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

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

tbrp: Boiling point at reduced pressure
tc: Critical Temperature
tf: Normal melting (fusion) point
vc: Critical Volume

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