

trans-5-Hydroxy-2-methyl-1,3-dioxane

Inchi:	InChI=1S/C5H10O3/c1-4-7-2-5(6)3-8-4/h4-6H,2-3H2,1H3/t4-,5-
InchiKey:	RLVMGTURHNLOJX-URHBZAFASA-N
Formula:	C5H10O3
SMILES:	CC1OCC(O)CO1
Mol. weight [g/mol]:	118.13

Physical Properties

Property code	Value	Unit	Source
gf	-301.10	kJ/mol	Joback Method
hf	-528.78	kJ/mol	Joback Method
hfus	21.66	kJ/mol	Joback Method
hvap	52.54	kJ/mol	Joback Method
log10ws	0.03		Crippen Method
logp	-0.260		Crippen Method
mcvol	88.060	ml/mol	McGowan Method
pc	4743.15	kPa	Joback Method
ripol	1798.00		NIST Webbook
tb	474.76	K	Joback Method
tc	670.84	K	Joback Method
tf	263.21	K	Joback Method
vc	0.308	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	204.68	J/molxK	474.76	Joback Method
cpg	216.02	J/molxK	507.44	Joback Method
cpg	226.84	J/molxK	540.12	Joback Method
cpg	237.14	J/molxK	572.80	Joback Method
cpg	246.94	J/molxK	605.48	Joback Method
cpg	256.23	J/molxK	638.16	Joback Method
cpg	265.02	J/molxK	670.84	Joback Method
dvisc	0.0317470	Paxs	263.21	Joback Method
dvisc	0.0089098	Paxs	298.47	Joback Method

dvisc	0.0032707	Paxs	333.73	Joback Method
dvisc	0.0014541	Paxs	368.99	Joback Method
dvisc	0.0007446	Paxs	404.24	Joback Method
dvisc	0.0004246	Paxs	439.50	Joback Method
dvisc	0.0002631	Paxs	474.76	Joback Method

Sources

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
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R572204&Units=SI

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

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