

Ribonic acid, 1,4-lactone, TMS

Inchi:	InChI=1S/C5H8O5/c6-1-2-3(7)4(8)5(9)10-2/h2-4,6-8H,1H2/t2-,3-,4+/m1/s1
InchiKey:	CUOKHACJLGPRHD-JJYYJPOSSA-N
Formula:	C5H8O5
SMILES:	O=C1OC(CO)C(O)C1O
Mol. weight [g/mol]:	148.11
CAS:	74742-38-4

Physical Properties

Property code	Value	Unit	Source
gf	-606.82	kJ/mol	Joback Method
hf	-853.12	kJ/mol	Joback Method
hfus	24.54	kJ/mol	Joback Method
hvap	85.16	kJ/mol	Joback Method
log10ws	1.20		Crippen Method
logp	-2.374		Crippen Method
mvol	95.500	ml/mol	McGowan Method
pc	6084.49	kPa	Joback Method
rinpol	1697.00		NIST Webbook
tb	691.05	K	Joback Method
tc	875.76	K	Joback Method
tf	425.78	K	Joback Method
vc	0.340	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	289.79	J/molxK	691.05	Joback Method
cpg	297.74	J/molxK	721.84	Joback Method
cpg	305.26	J/molxK	752.62	Joback Method
cpg	312.33	J/molxK	783.41	Joback Method
cpg	318.95	J/molxK	814.19	Joback Method
cpg	325.10	J/molxK	844.98	Joback Method
cpg	330.76	J/molxK	875.76	Joback Method

Sources

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=C74742384&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.cheméo.com/doc/models/crippen_log10ws

Legend

cpg:	Ideal gas heat capacity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
h vap:	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
r in pol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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