(S)-(+)-2',3'-Dideoxyribonolactone

Inchi: InChI=1S/C5H8O3/c6-3-4-1-2-5(7)8-4/h4,6H,1-3H2/t4-/m1/s1
InchiKey: NSISJFFVIMQBRN-SCSAIBSYSA-N
Formula: C5H8O3
SMILES: O=C1CCC(CO)O1
Mol. weight [g/mol]: 116.12
CAS: 32780-06-6

Physical Properties

Property code	Value	Unit	Source
gf	-317.76	kJ/mol	Joback Method
hf	-507.98	kJ/mol	Joback Method
hfus	14.22	kJ/mol	Joback Method
hvap	52.42	kJ/mol	Joback Method
log10ws	-0.05		Crippen Method
logp	-0.316		Crippen Method
mcvol	83.760	ml/mol	McGowan Method
pc	5102.04	kPa	Joback Method
tb	516.03	K	Joback Method
tc	721.74	K	Joback Method
tf	312.62	K	Joback Method
vc	0.303	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	198.34	J/mol×K	516.03	Joback Method
cpg	208.44	J/mol×K	550.31	Joback Method
cpg	218.10	J/mol×K	584.60	Joback Method
cpg	227.32	J/mol×K	618.88	Joback Method
cpg	236.08	J/mol×K	653.17	Joback Method
cpg	244.38	J/mol×K	687.45	Joback Method
cpg	252.22	J/mol×K	721.74	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=C32780066&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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
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