

D-(-)-Ribose, aldononitrile, tetraacetate

Other names:	Ribononitrile, 2,3,4,5-tetraacetate, D- D-(-)-Ribose, aldononitrile, tetraacetate
Inchi:	InChI=1S/C13H17NO8/c1-7(15)19-6-12(21-9(3)17)13(22-10(4)18)11(5-14)20-8(2)16/h11
InchiKey:	YHTPKBYAZJOQCI-UHFFFAOYSA-N
Formula:	C13H17NO8
SMILES:	CC(=O)OCC(OC(C)=O)C(OC(C)=O)C(C#N)OC(C)=O
Mol. weight [g/mol]:	315.28

Physical Properties

Property code	Value	Unit	Source
hfus	31.51	kJ/mol	Joback Method
log10ws	-1.23		Cheméo Relay (1.0)
logp	-0.132		Crippen Method
mcvol	225.170	ml/mol	McGowan Method
rinpol	1691.10		NIST Webbook
rinpol	1691.10		NIST Webbook
tb	569.58	K	Cheméo Relay (1.0)
tf	355.78	K	Cheméo Relay (1.0)

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	675.92	J/mol×K	902.76	Joback Method
cpg	685.12	J/mol×K	938.32	Joback Method
cpg	693.11	J/mol×K	973.87	Joback Method
cpg	699.85	J/mol×K	1009.43	Joback Method
cpg	705.31	J/mol×K	1044.99	Joback Method
cpg	709.46	J/mol×K	1080.55	Joback Method
cpg	712.26	J/mol×K	1116.10	Joback Method

Sources

Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Cheméo Relay (1.0):	
Cheméo Relay (1.0, beta):	
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C25546503&Units=SI

Legend

cpg:	Ideal gas heat capacity
hfus:	Enthalpy of fusion at standard conditions
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
rlnpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tf:	Normal melting (fusion) point

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