Uridine, 2'-deoxy-

Other names:	1-(2-Deoxy-«beta»-D-erythro-pentofuranoxyl)uracil
	1-(2-Deoxy-Â«betaÂ»-D-erythro-pentofuranoxyl)uracil
	2'-Deoxyuridine
	2'-Desoxyuridine
	2,4(1H,3H)-Pyrimidinedione, 1-(2-deoxy-«beta»-D-erythro-pentofuranosyl)-
	2,4(1H,3H)-Pyrimidinedione, 1-(2-deoxy-«beta»-D-ribofuranosyl)-
	2,4(1H,3H)-Pyrimidinedione, 1-(2-deoxy-Â«betaÂ»-D-erythro-pentofuranosyl)-
	2,4(1H,3H)-Pyrimidinedione, 1-(2-deoxy-Â«betaÂ»-D-ribofuranosyl)-
	Deoxyribose uracil
	Deoxyuridine
	Desoxyuridine
	NSC 23615
	Uracil deoxyriboside
	Uracil desoxyuridine
	dUrd
Inchi:	InChI=1S/C9H12N2O5/c12-4-6-5(13)3-8(16-6)11-2-1-7(14)10-9(11)15/h1-2,5-6,8,12-13H
InchiKey:	MXHRCPNRJAMMIM-UHFFFAOYSA-N
Formula:	C9H12N2O5
SMILES:	O=c1ccn(C2CC(O)C(CO)O2)c(=O)[nH]1
Mol. weight [g/mol]:	228.20
CAS:	951-78-0

Physical Properties

Property code	Value	Unit	Source
affp	906.00	kJ/mol	NIST Webbook
log10ws	0.76		Crippen Method
logp	-2.305		Crippen Method
mcvol	152.360	ml/mol	McGowan Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source

cps	263.41	J/mol×K	298.15	Molar Heat Capacities of Some Derivatives of Uridine and 2'-Deoxyuridine
cps	266.16	J/mol×K	303.15	Molar Heat Capacities of Some Derivatives of Uridine and 2'-Deoxyuridine
cps	268.90	J/mol×K	308.15	Molar Heat Capacities of Some Derivatives of Uridine and 2'-Deoxyuridine
cps	271.65	J/mol×K	313.15	Molar Heat Capacities of Some Derivatives of Uridine and 2'-Deoxyuridine
cps	274.39	J/mol×K	318.15	Molar Heat Capacities of Some Derivatives of Uridine and 2'-Deoxyuridine
cps	277.14	J/mol×K	323.15	Molar Heat Capacities of Some Derivatives of Uridine and 2'-Deoxyuridine
cps	279.89	J/mol×K	328.15	Molar Heat Capacities of Some Derivatives of Uridine and 2'-Deoxyuridine
cps	282.63	J/mol×K	333.15	Molar Heat Capacities of Some Derivatives of Uridine and 2'-Deoxyuridine
cps	285.38	J/mol×K	338.15	Molar Heat Capacities of Some Derivatives of Uridine and 2'-Deoxyuridine
cps	288.12	J/mol×K	343.15	Molar Heat Capacities of Some Derivatives of Uridine and 2'-Deoxyuridine
cps	290.86	J/mol×K	348.15	Molar Heat Capacities of Some Derivatives of Uridine and 2'-Deoxyuridine
cps	293.60	J/mol×K	353.15	Molar Heat Capacities of Some Derivatives of Uridine and 2'-Deoxyuridine

cps	296.36	J/mol×K	358.15	Molar Heat Capacities of Some Derivatives of Uridine and 2'-Deoxyuridine
cps	299.10	J/mol×K	363.15	Molar Heat Capacities of Some Derivatives of Uridine and 2'-Deoxyuridine
cps	301.84	J/mol×K	368.15	Molar Heat Capacities of Some Derivatives of Uridine and 2'-Deoxyuridine

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Homotactic enthalpic pairwise interactions of four deoxynucleosides (dU, dC, dG, dT) in dimethylformamide + water mixtures at 298.15 K:	https://www.doi.org/10.1016/j.tca.2012.09.030
Molar Heat Capacities of Some Derivatives of Uridine and 2'-Deoxyuridine:	https://www.doi.org/10.1021/je800243y
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C951780&Units=SI

Legend

affp:	Proton affinity
cps:	Solid phase heat capacity
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume

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