

2-DEOXY-D-GLUCOSE

Other names:	2 DG
	2-Deoxy-D-arabino-hexopyranose
	2-Deoxy-D-arabino-hexose
	2-Deoxy-D-mannose
	2-Deoxyglucose
	2-Desoxy-D-glucose
	Ba 2758
	D-2-Deoxyglucose
	D-Glucose, 2-deoxy-
	D-arabino-Hexopyranose, 2-deoxy-
	D-arabino-Hexose, 2-deoxy-
	Deoxyglucose
	Glucose, 2-deoxy-
	NSC 15193
Inchi:	InChI=1S/C6H12O5/c7-2-4-6(10)3(8)1-5(9)11-4/h3-10H,1-2H2/t3-,4-,5?,6+/m1/s1
InchiKey:	PMMURAAUARKVCB-UHFFFAOYSA-N
Formula:	C6H12O5
SMILES:	OCC1OC(O)CC(O)C1O
Mol. weight [g/mol]:	164.16

Physical Properties

Property code	Value	Unit	Source
hfus	30.68	kJ/mol	Joback Method
logp	-2.192		Crippen Method
mcvol	113.890	ml/mol	McGowan Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	370.40	J/mol×K	737.89	Joback Method
cpg	413.53	J/mol×K	914.27	Joback Method
cpg	407.58	J/mol×K	884.87	Joback Method
cpg	401.13	J/mol×K	855.47	Joback Method
cpg	394.19	J/mol×K	826.08	Joback Method

cpg	386.76	J/mol×K	796.68	Joback Method
cpg	378.83	J/mol×K	767.29	Joback Method
cps	213.60	J/mol×K	323.15	Temperature dependence of the heat capacities in the solid state of 18 mono-, di-, and poly-saccharides
cps	204.50	J/mol×K	308.15	Temperature dependence of the heat capacities in the solid state of 18 mono-, di-, and poly-saccharides
cps	218.40	J/mol×K	333.15	Temperature dependence of the heat capacities in the solid state of 18 mono-, di-, and poly-saccharides
cps	224.90	J/mol×K	338.15	Temperature dependence of the heat capacities in the solid state of 18 mono-, di-, and poly-saccharides
cps	226.40	J/mol×K	343.15	Temperature dependence of the heat capacities in the solid state of 18 mono-, di-, and poly-saccharides
cps	233.00	J/mol×K	348.15	Temperature dependence of the heat capacities in the solid state of 18 mono-, di-, and poly-saccharides
cps	235.40	J/mol×K	353.15	Temperature dependence of the heat capacities in the solid state of 18 mono-, di-, and poly-saccharides
cps	244.00	J/mol×K	358.15	Temperature dependence of the heat capacities in the solid state of 18 mono-, di-, and poly-saccharides

cps	189.60	J/mol×K	288.15	Temperature dependence of the heat capacities in the solid state of 18 mono-, di-, and poly-saccharides	
cps	209.00	J/mol×K	318.15	Temperature dependence of the heat capacities in the solid state of 18 mono-, di-, and poly-saccharides	
cps	206.90	J/mol×K	313.15	Temperature dependence of the heat capacities in the solid state of 18 mono-, di-, and poly-saccharides	
cps	214.70	J/mol×K	328.15	Temperature dependence of the heat capacities in the solid state of 18 mono-, di-, and poly-saccharides	
cps	201.00	J/mol×K	303.15	Temperature dependence of the heat capacities in the solid state of 18 mono-, di-, and poly-saccharides	
cps	200.20	J/mol×K	298.15	Temperature dependence of the heat capacities in the solid state of 18 mono-, di-, and poly-saccharides	
cps	195.80	J/mol×K	293.15	Temperature dependence of the heat capacities in the solid state of 18 mono-, di-, and poly-saccharides	
dvisc	0.0029512	Pa×s	421.89	Joback Method	
dvisc	0.0004256	Pa×s	474.56	Joback Method	
dvisc	0.0000904	Pa×s	527.22	Joback Method	
dvisc	0.0000254	Pa×s	579.89	Joback Method	
dvisc	0.0000088	Pa×s	632.56	Joback Method	
dvisc	0.0000036	Pa×s	685.22	Joback Method	
dvisc	0.0000017	Pa×s	737.89	Joback Method	

Sources

Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
Cheméo Relay (1.0):	
Investigations to explore interactions in (polyhydroxy solute + L-ascorbic acid + H ₂ O) solutions at different compositions in aqueous solution: Thermodynamic and Viscometric Approach	https://www.doi.org/10.1016/j.jct.2016.07.020 https://www.doi.org/10.1021/acs.jced.5b00845
Modulation in physico-chemical characteristics of some polyhydroxy solutes in presence of L-glycine: Volumetric and NMR spectroscopic studies	https://www.doi.org/10.1016/j.fluid.2015.05.043 http://webbook.nist.gov/cgi/cbook.cgi?ID=C154176&Units=SI
Molecular Interactions of Saccharides and Their Derivatives with Thiamine	https://www.doi.org/10.1021/acs.jced.7b00937
Crippen Method	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Aqueous Solutions: Calorimetric, Viscometric, and NMR Spectroscopic Studies	https://www.chemeo.com/doc/models/crippen_log10ws
Temperature dependence of the heat capacities in the solid state of 18 monosaccharides	https://www.doi.org/10.1016/j.jct.2008.08.007
Influence of Phosphorylated Salts on Enthalpy of Dilution and Isentropic Compressibility Properties of Saccharides and Their Derivatives in Aqueous Solutions:	https://www.doi.org/10.1021/acs.jced.8b00681

Legend

cpg:	Ideal gas heat capacity
cps:	Solid phase heat capacity
dvisc:	Dynamic viscosity
hfus:	Enthalpy of fusion at standard conditions
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume

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