

D-Galactonic acid

Inchi:	InChI=1S/C6H12O7/c7-1-2(8)3(9)4(10)5(11)6(12)13/h2-5,7-11H,1H2,(H,12,13)/t2-,3+,4+
InchiKey:	RGHNJXZEOKUKBD-MGCNEYSASA-N
Formula:	C6H12O7
SMILES:	O=C(O)C(O)C(O)C(O)C(O)CO
Mol. weight [g/mol]:	196.16
CAS:	576-36-3

Physical Properties

Property code	Value	Unit	Source
chs	-2465.90 ± 2.80	kJ/mol	NIST Webbook
gf	-959.96	kJ/mol	Joback Method
hf	-1214.25	kJ/mol	Joback Method
hfus	23.33	kJ/mol	Joback Method
hvap	134.22	kJ/mol	Joback Method
log10ws	1.80		Crippen Method
logp	-3.493		Crippen Method
mcvol	132.190	ml/mol	McGowan Method
pc	7601.04	kPa	Joback Method
tb	941.87	K	Joback Method
tc	1163.31	K	Joback Method
tf	512.23	K	Joback Method
vc	0.468	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	423.44	J/molxK	941.87	Joback Method
cpg	447.39	J/molxK	1126.40	Joback Method
cpg	443.35	J/molxK	1089.49	Joback Method
cpg	438.97	J/molxK	1052.59	Joback Method
cpg	434.21	J/molxK	1015.68	Joback Method
cpg	429.05	J/molxK	978.78	Joback Method
cpg	451.11	J/molxK	1163.31	Joback Method
dvisc	2.6193176e-09	Paxs	941.87	Joback Method

dvisc	7.2098644e-09	Paxs	870.26	Joback Method
dvisc	2.3796826e-08	Paxs	798.66	Joback Method
dvisc	9.9371653e-08	Paxs	727.05	Joback Method
dvisc	0.0000006	Paxs	655.44	Joback Method
dvisc	0.0000050	Paxs	583.84	Joback Method
dvisc	0.0000796	Paxs	512.23	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=C576363&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

chs:	Standard solid enthalpy of combustion
cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
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

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