

Galactose, alpha,d-,pentaacetate

Other names:	«alpha»-D-Galactopyranose, 1,2,3,4,6-pentaacetate beta-D-glucosepentaacetate
Inchi:	InChI=1S/C16H22O11/c1-7(17)22-6-12-13(23-8(2)18)14(24-9(3)19)15(25-10(4)20)16(27
InchiKey:	LPTITAGPBXDDGR-CQJMVSDSSA-N
Formula:	C16H22O11
SMILES:	CC(=O)OCC1OC(OC(C)=O)C(OC(C)=O)C(OC(C)=O)C1OC(C)=O
Mol. weight [g/mol]:	390.34
CAS:	4163-59-1

Physical Properties

Property code	Value	Unit	Source
gf	-1178.27	kJ/mol	Joback Method
hf	-1756.61	kJ/mol	Joback Method
hfus	55.23	kJ/mol	Joback Method
hvap	100.69	kJ/mol	Joback Method
log10ws	-0.87		Crippen Method
logp	-0.367		Crippen Method
mcvol	268.510	ml/mol	McGowan Method
pc	1652.46	kPa	Joback Method
tb	974.75	K	Joback Method
tc	1196.79	K	Joback Method
tf	647.87	K	Joback Method
vc	1.002	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	907.09	J/mol×K	974.75	Joback Method
cpg	916.30	J/mol×K	1011.76	Joback Method
cpg	923.29	J/mol×K	1048.76	Joback Method
cpg	927.99	J/mol×K	1085.77	Joback Method
cpg	930.33	J/mol×K	1122.77	Joback Method
cpg	930.22	J/mol×K	1159.78	Joback Method
cpg	927.59	J/mol×K	1196.79	Joback Method

dvisc	0.0004318	Pa×s	647.87	Joback Method
dvisc	0.0003009	Pa×s	702.35	Joback Method
dvisc	0.0002208	Pa×s	756.83	Joback Method
dvisc	0.0001689	Pa×s	811.31	Joback Method
dvisc	0.0001337	Pa×s	865.79	Joback Method
dvisc	0.0001087	Pa×s	920.27	Joback Method
dvisc	0.0000905	Pa×s	974.75	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C4163591&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
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

Legend

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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