1,2:5,6-Dianhydrogalactitol

Other names:	Dianhydrodulcitol
	Dianhydrogalactitol
	Dulcitol diepoxide
	DAD
	DAG
	Galactitol, 1,2:5,6-dianhydro-
	NSC 132313
	1,2:5,6-Dianhydrodulcitol
	1,2:5,6-Diepoxydulcitol
	1,2-5,6-Dianhydro-dulcitol
Inchi:	InChI=1S/C6H10O4/c7-5(3-1-9-3)6(8)4-2-10-4/h3-8H,1-2H2
InchiKey:	AAFJXZWCNVJTMK-UHFFFAOYSA-N
Formula:	C6H10O4
SMILES:	OC(C1CO1)C(O)C1CO1
Mol. weight [g/mol]:	146.14
CAS:	23261-20-3

Physical Properties

Property code	Value	Unit	Source
gf	-329.62	kJ/mol	Joback Method
hf	-600.59	kJ/mol	Joback Method
hfus	24.65	kJ/mol	Joback Method
hvap	70.38	kJ/mol	Joback Method
log10ws	0.73		Crippen Method
logp	-1.494		Crippen Method
mcvol	97.160	ml/mol	McGowan Method
pc	5470.75	kPa	Joback Method
tb	587.54	K	Joback Method
tc	772.67	K	Joback Method
tf	338.04	K	Joback Method
vc	0.353	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	279.27	J/mol×K	587.54	Joback Method
cpg	288.20	J/mol×K	618.40	Joback Method
cpg	296.56	J/mol×K	649.25	Joback Method
cpg	304.40	J/mol×K	680.11	Joback Method
cpg	311.76	J/mol×K	710.96	Joback Method
cpg	318.68	J/mol×K	741.82	Joback Method
cpg	325.21	J/mol×K	772.67	Joback Method
dvisc	0.0252275	Pa×s	338.04	Joback Method
dvisc	0.0073346	Pa×s	379.62	Joback Method
dvisc	0.0027215	Pa×s	421.21	Joback Method
dvisc	0.0012068	Pa×s	462.79	Joback Method
dvisc	0.0006119	Pa×s	504.37	Joback Method
dvisc	0.0003441	Pa×s	545.96	Joback Method
dvisc	0.0002099	Pa×s	587.54	Joback Method

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C23261203&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