dimethyl [S(R*,R*)]-tartrate

Other names: (-)-Dimethyl D-tartrate
Inchi: InChI=1S/C6H10O6/c1-11-5(9)3(7)4(8)6(10)12-2/h3-4,7-8H,1-2H3/t3-,4-/m1/s1
InchiKey: PVRATXCXJDHJJN-QWWZWVQMSA-N
Formula: C6H10O6
SMILES: COC(=O)C(O)C(O)C(=O)OC
Mol. weight [g/mol]: 178.14
CAS: 13171-64-7

Physical Properties

Property code	Value	Unit	Source
chs	-2593.00	kJ/mol	NIST Webbook
gf	-746.72	kJ/mol	Joback Method
hf	-971.79	kJ/mol	Joback Method
hfus	18.00	kJ/mol	Joback Method
hvap	79.84	kJ/mol	Joback Method
log10ws	1.19		Crippen Method
logp	-1.946		Crippen Method
mcvol	122.020	ml/mol	McGowan Method
pc	4432.62	kPa	Joback Method
tb	672.74	K	Joback Method
tc	851.56	K	Joback Method
tf	393.34	K	Joback Method
vc	0.446	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	322.54	J/mol×K	672.74	Joback Method
cpg	330.00	J/mol×K	702.54	Joback Method
cpg	337.07	J/mol×K	732.35	Joback Method
cpg	343.76	J/mol×K	762.15	Joback Method
cpg	350.05	J/mol×K	791.95	Joback Method
cpg	355.94	J/mol×K	821.76	Joback Method
cpg	361.42	J/mol×K	851.56	Joback Method

dvisc	0.0035690	Pa×s	393.34	Joback Method
dvisc	0.0008981	Pa×s	439.91	Joback Method
dvisc	0.0002943	Pa×s	486.47	Joback Method
dvisc	0.0001172	Pa×s	533.04	Joback Method
dvisc	0.0000541	Pa×s	579.61	Joback Method
dvisc	0.0000280	Pa×s	626.17	Joback Method
dvisc	0.0000159	Pa×s	672.74	Joback Method

Sources

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
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C13171647&Units=SI

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