(+)-Diethyl L-tartrate

Other names:	Butanedioic acid, 2,3-dihydroxy- [R-(R*,R*)]-, diethyl ester
	Tartaric acid, diethyl ester
	Butanedioic acid, 2,3-dihydroxy-, diethyl ester
	Diethyl (R,R)(+)tartrate
	Diethyl (2R,3R)-(+)-tartrate
	Diethyl (2R,3R)-tartrate
	Diethyl tartrate
	Diethyl L-tartrate
	Diethyl 1,2-dihydroxy-1,2-ethanedicarboxylate
	Ethyl (+)-tartrate
	Ethyl tartrate
	L-(+)-(Diethyl tartrate)
	Tartaric acid, diethyl ester, (R,R)-
	L-(+)-Tartaric acid diethyl ester
	Butanedioic acid, 2,3-dihydroxy- (2R,3R)-, 1,4-diethyl ester
	Butanedioic acid, 2,3-dihydroxy- (2R,3R)-, diethyl ester
	Diethyl (+)-tartrate
	NSC 44808
	diethyl tartarate
Inchi:	InChI=1S/C8H14O6/c1-3-13-7(11)5(9)6(10)8(12)14-4-2/h5-6,9-10H,3-4H2,1-2H3/t5-,6-/m
InchiKey:	YSAVZVORKRDODB-WDSKDSINSA-N
Formula:	C8H14O6
SMILES:	CCOC(=O)C(O)C(O)C(=O)OCC
Mol. weight [g/mol]:	206.19
CAS:	87-91-2

Physical Properties

Property code	Value	Unit	Source
chs	-3877.30	kJ/mol	NIST Webbook
gf	-729.88	kJ/mol	Joback Method
hf	-1013.07	kJ/mol	Joback Method
hfus	23.18	kJ/mol	Joback Method
hvap	84.30	kJ/mol	Joback Method
log10ws	0.35		Crippen Method
logp	-1.166		Crippen Method
mcvol	150.200	ml/mol	McGowan Method
pc	3484.76	kPa	Joback Method

ripol	2358.00		NIST Webbook
tb	553.20	K	NIST Webbook
tc	897.05	K	Joback Method
tf	415.88	K	Joback Method
vc	0.557	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	467.22	J/mol×K	897.05	Joback Method
cpg	460.80	J/mol×K	867.29	Joback Method
cpg	453.87	J/mol×K	837.54	Joback Method
cpg	446.44	J/mol×K	807.78	Joback Method
cpg	438.51	J/mol×K	778.02	Joback Method
cpg	430.10	J/mol×K	748.26	Joback Method
cpg	421.19	J/mol×K	718.50	Joback Method
dvisc	0.0021532	Pa×s	415.88	Joback Method
dvisc	0.0000099	Pa×s	718.50	Joback Method
dvisc	0.0000173	Pa×s	668.06	Joback Method
dvisc	0.0000331	Pa×s	617.63	Joback Method
dvisc	0.0000712	Pa×s	567.19	Joback Method
dvisc	0.0001777	Pa×s	516.75	Joback Method
dvisc	0.0005404	Pa×s	466.32	Joback Method
hvapt	67.30	kJ/mol	464.00	NIST Webbook

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=C87912&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
hvapt:	Enthalpy of vaporization at a given temperature
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume