Dimethyl malate

Inchi: InChI=1S/C6H10O5/c1-10-5(8)3-4(7)6(9)11-2/h4,7H,3H2,1-2H3
InchiKey: YSEKNCXYRGKTBJ-UHFFFAOYSA-N
Formula: C6H10O5
SMILES: COC(=O)CC(O)C(=O)OC
Mol. weight [g/mol]: 162.14

Physical Properties

Property code	Value	Unit	Source
gf	-607.46	kJ/mol	Joback Method
hf	-814.28	kJ/mol	Joback Method
hfus	17.44	kJ/mol	Joback Method
hvap	63.55	kJ/mol	Joback Method
log10ws	0.57		Crippen Method
logp	-0.917		Crippen Method
mcvol	116.150	ml/mol	McGowan Method
pc	3896.50	kPa	Joback Method
tb	581.00	K	Joback Method
tc	763.03	K	Joback Method
tf	347.52	K	Joback Method
vc	0.432	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	280.03	J/mol×K	581.00	Joback Method
cpg	318.69	J/mol×K	732.69	Joback Method
cpg	311.67	J/mol×K	702.35	Joback Method
cpg	304.29	J/mol×K	672.01	Joback Method
cpg	296.55	J/mol×K	641.68	Joback Method
cpg	288.46	J/mol×K	611.34	Joback Method
cpg	325.33	J/mol×K	763.03	Joback Method
dvisc	0.0000920	Pa×s	581.00	Joback Method
dvisc	0.0001396	Pa×s	542.09	Joback Method
dvisc	0.0002257	Pa×s	503.17	Joback Method

dvisc	0.0003956	Pa×s	464.26	Joback Method
dvisc	0.0007685	Pa×s	425.35	Joback Method
dvisc	0.0017064	Pa×s	386.43	Joback Method
dvisc	0.0045299	Pa×s	347.52	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=B6006609&Units=SI

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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