ethyl succinic acid

Other names: 2-Ethylbutanedioic acid
Inchi: InChI=1S/C6H10O4/c1-2-4(6(9)10)3-5(7)8/h4H,2-3H2,1H3,(H,7,8)(H,9,10)
InchiKey: RVHOBHMAPRVOLO-UHFFFAOYSA-N
Formula: C6H10O4
SMILES: CCC(CC(=O)O)C(=O)O
Mol. weight [g/mol]: 146.14
CAS: 636-48-6

Physical Properties

Property code	Value	Unit	Source
chs	-2801.00 ± 1.40	kJ/mol	NIST Webbook
gf	-534.28	kJ/mol	Joback Method
hf	-702.07	kJ/mol	Joback Method
hfus	19.15	kJ/mol	Joback Method
hvap	75.41	kJ/mol	Joback Method
log10ws	-0.29		Crippen Method
logp	0.572		Crippen Method
mcvol	110.280	ml/mol	McGowan Method
pc	4590.15	kPa	Joback Method
tb	628.34	K	Joback Method
tc	804.84	K	Joback Method
tf	363.88	K	Joback Method
vc	0.415	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	278.07	J/mol×K	628.34	Joback Method
cpg	285.25	J/mol×K	657.76	Joback Method
cpg	292.08	J/mol×K	687.17	Joback Method
cpg	298.55	J/mol×K	716.59	Joback Method
cpg	304.69	J/mol×K	746.00	Joback Method
cpg	310.49	J/mol×K	775.42	Joback Method
cpg	315.96	J/mol×K	804.84	Joback Method

dvisc	0.0095884	Pa×s	363.88	Joback Method
dvisc	0.0022752	Pa×s	407.96	Joback Method
dvisc	0.0007147	Pa×s	452.03	Joback Method
dvisc	0.0002758	Pa×s	496.11	Joback Method
dvisc	0.0001243	Pa×s	540.19	Joback Method
dvisc	0.0000632	Pa×s	584.26	Joback Method
dvisc	0.0000353	Pa×s	628.34	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C636486&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

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