Butanoic acid, 2,2,3,3-tetramethyl, ethyl ester

Inchi: InChI=1S/C10H20O2/c1-7-12-8(11)10(5,6)9(2,3)4/h7H2,1-6H3
InchiKey: ISDTWPKODWTCFS-UHFFFAOYSA-N
Formula: C10H20O2
SMILES: CCOC(=O)C(C)(C)C(C)(C)C
Mol. weight [g/mol]: 172.26

Physical Properties

Property code	Value	Unit	Source
gf	-194.92	kJ/mol	Joback Method
hf	-512.03	kJ/mol	Joback Method
hfus	9.62	kJ/mol	Joback Method
hvap	44.42	kJ/mol	Joback Method
log10ws	-2.39		Crippen Method
logp	2.622		Crippen Method
mcvol	159.200	ml/mol	McGowan Method
pc	2280.59	kPa	Joback Method
rinpol	987.00		NIST Webbook
tb	498.03	K	Joback Method
tc	691.51	K	Joback Method
tf	279.46	K	Joback Method
vc	0.598	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	373.79	J/mol×K	498.03	Joback Method
cpg	390.18	J/mol×K	530.28	Joback Method
cpg	405.67	J/mol×K	562.52	Joback Method
cpg	420.29	J/mol×K	594.77	Joback Method
cpg	434.08	J/mol×K	627.01	Joback Method
cpg	447.08	J/mol×K	659.26	Joback Method
cpg	459.32	J/mol×K	691.51	Joback Method
dvisc	0.0056934	Pa×s	279.46	Joback Method
dvisc	0.0023921	Pa×s	315.89	Joback Method

dvisc	0.0012024	Pa×s	352.32	Joback Method
dvisc	0.0006876	Pa×s	388.75	Joback Method
dvisc	0.0004327	Pa×s	425.17	Joback Method
dvisc	0.0002929	Pa×s	461.60	Joback Method
dvisc	0.0002100	Pa×s	498.03	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R108155&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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume