Propionic acid, (2,2,4,4-tetramethylcyclobutane dioxy)bis-

Inchi: InChI=1S/C14H24O6/c1-13(2)11(19-7-5-9(15)16)14(3,4)12(13)20-8-6-10(17)18/h11-12H

InchiKey: YJUVIVRSTMYYFQ-UHFFFAOYSA-N

Formula: C14H24O6

SMILES: CC1(C)C(OCCC(=O)O)C(C)(C)C1OCCC(=O)O

Mol. weight [g/mol]: 288.34

CAS: 97175-20-7

Physical Properties

Property code	Value	Unit	Source
gf	-659.94	kJ/mol	Joback Method
hf	-1090.25	kJ/mol	Joback Method
hfus	32.42	kJ/mol	Joback Method
hvap	95.28	kJ/mol	Joback Method
log10ws	-1.69		Crippen Method
logp	1.772		Crippen Method
mcvol	223.880	ml/mol	McGowan Method
pc	2183.60	kPa	Joback Method
tb	854.14	K	Joback Method
tc	1050.32	K	Joback Method
tf	563.00	K	Joback Method
vc	0.848	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	737.34	J/mol×K	854.14	Joback Method
cpg	753.25	J/mol×K	886.84	Joback Method
cpg	769.29	J/mol×K	919.53	Joback Method
cpg	785.59	J/mol×K	952.23	Joback Method
cpg	802.27	J/mol×K	984.93	Joback Method
cpg	819.48	J/mol×K	1017.62	Joback Method
cpg	837.34	J/mol×K	1050.32	Joback Method

Sources

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=C97175207&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

cpg:	Ideal gas heat capacity
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