Tetramethyl ethylenetetracarboxylate

Inchi: InChI=1S/C10H12O8/c1-15-7(11)5(8(12)16-2)6(9(13)17-3)10(14)18-4/h1-4H3
InchiKey: NPBUMSUYCUWTSF-UHFFFAOYSA-N
Formula: C10H12O8
SMILES: COC(=O)C(C(=O)OC)=C(C(=O)OC)C(=O)OC
Mol. weight [g/mol]: 260.20
CAS: 1733-15-9

Physical Properties

Property code	Value	Unit	Source
gf	-839.24	kJ/mol	Joback Method
hf	-1131.29	kJ/mol	Joback Method
hfus	30.39	kJ/mol	Joback Method
hvap	74.60	kJ/mol	Joback Method
log10ws	0.69		Crippen Method
logp	-1.025		Crippen Method
mcvol	177.220	ml/mol	McGowan Method
pc	2679.08	kPa	Joback Method
rinpol	1723.00		NIST Webbook
tb	737.28	K	Joback Method
tc	941.45	K	Joback Method
tf	458.10	K	Joback Method
vc	0.673	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	473.07	J/mol×K	737.28	Joback Method
cpg	483.57	J/mol×K	771.31	Joback Method
cpg	493.35	J/mol×K	805.34	Joback Method
cpg	502.37	J/mol×K	839.36	Joback Method
cpg	510.63	J/mol×K	873.39	Joback Method
cpg	518.09	J/mol×K	907.42	Joback Method
cpg	524.73	J/mol×K	941.45	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C1733159&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

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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume