Octatetraene dicarboxylic acid, dimethyl ester

Inchi: InChI=1S/C12H14O4/c1-15-11(13)9-7-5-3-4-6-8-10-12(14)16-2/h3-10H,1-2H3/b5-3+,6-4
InchiKey: JZTBREXKYLZPNJ-MIIZMDLZSA-N
Formula: C12H14O4
SMILES: COC(=O)C=CC=CC=CC(=O)OC
Mol. weight [g/mol]: 222.24

Physical Properties

Property code	Value	Unit	Source
gf	-96.80	kJ/mol	Joback Method
hf	-311.73	kJ/mol	Joback Method
hfus	33.22	kJ/mol	Joback Method
hvap	60.45	kJ/mol	Joback Method
log10ws	-1.99		Crippen Method
logp	1.557		Crippen Method
mcvol	177.620	ml/mol	McGowan Method
pc	2333.78	kPa	Joback Method
tb	643.18	K	Joback Method
tc	847.98	K	Joback Method
tf	349.00	K	Joback Method
vc	0.675	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	430.73	J/mol×K	643.18	Joback Method
cpg	443.15	J/mol×K	677.31	Joback Method
cpg	454.85	J/mol×K	711.45	Joback Method
cpg	465.86	J/mol×K	745.58	Joback Method
cpg	476.24	J/mol×K	779.71	Joback Method
cpg	486.04	J/mol×K	813.85	Joback Method
cpg	495.29	J/mol×K	847.98	Joback Method
dvisc	0.0012571	Pa×s	349.00	Joback Method
dvisc	0.0006029	Pa×s	398.03	Joback Method
dvisc	0.0003397	Pa×s	447.06	Joback Method

dvisc	0.0002144	Pa×s	496.09	Joback Method
dvisc	0.0001470	Pa×s	545.12	Joback Method
dvisc	0.0001073	Pa×s	594.15	Joback Method
dvisc	0.0000821	Pa×s	643.18	Joback Method

Sources

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=B6000663&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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