1,2-Benzenedicarboxylic acid, 4-hydroxy-, dimethyl ester

Other names: dimethyl 4-hydroxyphthalate
Benzene-1,2-dicarboxylic acid, 4-hydroxy, dimethyl ester
Inchi: InChI=1S/C10H10O5/c1-14-9(12)7-4-3-6(11)5-8(7)10(13)15-2/h3-5,11H,1-2H3
InchiKey: JJXVDRYFBGDXOU-UHFFFAOYSA-N
Formula: C10H10O5
SMILES: COC(=O)c1ccc(O)cc1C(=O)OC
Mol. weight [g/mol]: 210.18
CAS: 22479-95-4

Physical Properties

Property code	Value	Unit	Source
gf	-486.36	kJ/mol	Joback Method
hf	-691.58	kJ/mol	Joback Method
hfus	26.67	kJ/mol	Joback Method
hvap	72.12	kJ/mol	Joback Method
log10ws	-1.50		Crippen Method
logp	0.965		Crippen Method
mcvol	148.750	ml/mol	McGowan Method
pc	3805.69	kPa	Joback Method
rinpol	1780.00		NIST Webbook
rinpol	1780.00		NIST Webbook
tb	693.06	K	Joback Method
tc	920.77	K	Joback Method
tf	497.44	K	Joback Method
vc	0.501	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	383.57	J/mol×K	693.06	Joback Method
cpg	394.02	J/mol×K	731.01	Joback Method
cpg	403.80	J/mol×K	768.96	Joback Method
cpg	412.96	J/mol×K	806.92	Joback Method
cpg	421.52	J/mol×K	844.87	Joback Method

cpg	429.52	J/mol×K	882.82	Joback Method
cpg	437.01	J/mol×K	920.77	Joback Method
dvisc	0.0002172	Pa×s	497.44	Joback Method
dvisc	0.0001248	Pa×s	530.04	Joback Method
dvisc	0.0000764	Pa×s	562.65	Joback Method
dvisc	0.0000494	Pa×s	595.25	Joback Method
dvisc	0.0000334	Pa×s	627.85	Joback Method
dvisc	0.0000235	Pa×s	660.46	Joback Method
dvisc	0.0000171	Pa×s	693.06	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=C22479954&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

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