Succinic acid, 3-chlorophenyl 4-biphenyl ester

Inchi: InChI=1S/C22H17ClO4/c23-18-7-4-8-20(15-18)27-22(25)14-13-21(24)26-19-11-9-17(10-
InchiKey: NROIRGOBMMQAFT-UHFFFAOYSA-N
Formula: C22H17ClO4
SMILES: O=C(CCC(=O)Oc1cccc(Cl)c1)Oc1ccc(-c2ccccc2)cc1
Mol. weight [g/mol]: 380.82

Physical Properties

Property code	Value	Unit	Source
gf	-27.44	kJ/mol	Joback Method
hf	-316.10	kJ/mol	Joback Method
hfus	43.85	kJ/mol	Joback Method
hvap	95.41	kJ/mol	Joback Method
log10ws	-7.04		Crippen Method
logp	5.298		Crippen Method
mcvol	276.680	ml/mol	McGowan Method
pc	1870.79	kPa	Joback Method
rinpol	3303.00		NIST Webbook
rinpol	3303.00		NIST Webbook
tb	982.77	K	Joback Method
tc	1235.65	K	Joback Method
tf	616.24	K	Joback Method
vc	1.040	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	811.53	J/mol×K	982.77	Joback Method
cpg	821.99	J/mol×K	1024.92	Joback Method
cpg	831.01	J/mol×K	1067.06	Joback Method
cpg	838.65	J/mol×K	1109.21	Joback Method
cpg	845.00	J/mol×K	1151.36	Joback Method
cpg	850.12	J/mol×K	1193.51	Joback Method
cpg	854.09	J/mol×K	1235.65	Joback Method
dvisc	0.0002817	Pa×s	616.24	Joback Method

dvisc	0.0001741	Pa×s	677.33	Joback Method
dvisc	0.0001165	Pa×s	738.42	Joback Method
dvisc	0.0000829	Pa×s	799.50	Joback Method
dvisc	0.0000619	Pa×s	860.59	Joback Method
dvisc	0.0000481	Pa×s	921.68	Joback Method
dvisc	0.0000385	Pa×s	982.77	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=U390090&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