1,1'-Biphenyl, 2,2',5-trichloro-

Other names:	1,4-dichloro-2-(2-chlorophenyl)benzene
	2,2',5'-Trichlorobiphenyl
	2,2',5-Trichloro-1,1'-biphenyl
	2,2',5-Trichlorobiphenyl
	2,5,2'-Trichlorobiphenyl
	PCB 18
Inchi:	InChI=1S/C12H7Cl3/c13-8-5-6-12(15)10(7-8)9-3-1-2-4-11(9)14/h1-7H
InchiKey:	DCMURXAZTZQAFB-UHFFFAOYSA-N
Formula:	C12H7Cl3
SMILES:	Clc1ccc(Cl)c(-c2ccccc2Cl)c1
Mol. weight [g/mol]:	257.54
CAS:	37680-65-2

Physical Properties

Property code	Value	Unit	Source
gf	210.30	kJ/mol	Joback Method
hf	100.42	kJ/mol	Joback Method
hfus	26.34	kJ/mol	Joback Method
hvap	80.20 ± 0.90	kJ/mol	NIST Webbook
log10ws	-6.02		Aqueous Solubility Prediction Method
logp	5.314		Crippen Method
mcvol	169.140	ml/mol	McGowan Method
pc	2878.12	kPa	Joback Method
rinpol	1776.60		NIST Webbook
rinpol	1802.00		NIST Webbook
rinpol	1780.00		NIST Webbook
rinpol	1739.00		NIST Webbook
rinpol	1739.00		NIST Webbook
rinpol	1758.20		NIST Webbook
rinpol	1767.20		NIST Webbook
rinpol	1734.00		NIST Webbook
rinpol	1776.20		NIST Webbook
rinpol	1742.10		NIST Webbook
rinpol	1742.00		NIST Webbook
rinpol	1793.00		NIST Webbook
rinpol	1793.00		NIST Webbook

rinpol	1793.00		NIST Webbook
rinpol	1793.00		NIST Webbook
rinpol	1772.00		NIST Webbook
rinpol	1733.00		NIST Webbook
rinpol	1732.00		NIST Webbook
tb	654.55	K	Joback Method
tc	917.95	K	Joback Method
tf	405.16	K	Joback Method
vc	0.638	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	405.36	J/mol×K	917.95	Joback Method
cpg	349.20	J/mol×K	654.55	Joback Method
cpg	360.92	J/mol×K	698.45	Joback Method
cpg	371.61	J/mol×K	742.35	Joback Method
cpg	381.33	J/mol×K	786.25	Joback Method
cpg	390.14	J/mol×K	830.15	Joback Method
cpg	398.13	J/mol×K	874.05	Joback Method
dvisc	0.0001852	Pa×s	654.55	Joback Method
dvisc	0.0010725	Pa×s	405.16	Joback Method
dvisc	0.0006985	Pa×s	446.73	Joback Method
dvisc	0.0004893	Pa×s	488.29	Joback Method
dvisc	0.0003625	Pa×s	529.86	Joback Method
dvisc	0.0002805	Pa×s	571.42	Joback Method
dvisc	0.0002248	Pa×s	612.99	Joback Method
hsubt	93.70 ± 6.20	kJ/mol	308.00	NIST Webbook

Sources

Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

Joback Method: https://en.wikipedia.org/wiki/Joback_method

Aqueous Solubility Prediction Method: http://onschallenge.wikispaces.com/file/view/AqueousDataset002.xlsx/351826032/AqueousDa

McGowan Method: http://link.springer.com/article/10.1007/BF02311772

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C37680652&Units=SI

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
hsubt:	Enthalpy of sublimation at a given temperature
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