2,2-Bis(4-chlorophenyl)acetic acid

Other names: Benzeneacetic acid, 4-chloro-«alpha»-(4-chlorophenyl)-
Acetic acid, bis(p-chlorophenyl)-
p,p'-DDA
Bis(p-chlorophenyl)acetic acid
Bis(4-chlorophenyl)acetic acid
Di(p-chlorophenyl)acetic acid
Dichlorodiphenylacetic acid
DDA
DDA, (Degradation product)
p,p'-Dichlorodiphenylacetic acid
Bis(p-chlorphenyl)essigsaeure
2,2-Bis(p-chlorophenyl)acetic acid
Acetic acid, bis-(4-chlorophenyl)
NSC 4279

Inchi: InChI=1S/C14H10Cl2O2/c15-11-5-1-9(2-6-11)13(14(17)18)10-3-7-12(16)8-4-10/h1-8,13H

InchiKey: YIOCIFXUGBYCJR-UHFFFAOYSA-N

Formula: C14H10Cl2O2

SMILES: O=C(O)C(c1ccc(Cl)cc1)c1ccc(Cl)cc1

Mol. weight [g/mol]: 281.13

CAS: 83-05-6

Physical Properties

Property code	Value	Unit	Source
gf	-19.48	kJ/mol	Joback Method
hf	-183.74	kJ/mol	Joback Method
hfus	29.88	kJ/mol	Joback Method
hvap	84.44	kJ/mol	Joback Method
log10ws	-4.42		Crippen Method
logp	4.210		Crippen Method
mcvol	192.520	ml/mol	McGowan Method
pc	2950.48	kPa	Joback Method
rinpol	1933.00		NIST Webbook
tb	803.51	K	Joback Method
tc	1039.98	K	Joback Method
tf	441.26 ± 0.20	K	NIST Webbook
vc	0.721	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	529.47	J/mol×K	1039.98	Joback Method
cpg	523.33	J/mol×K	1000.57	Joback Method
cpg	516.58	J/mol×K	961.16	Joback Method
cpg	509.16	J/mol×K	921.74	Joback Method
cpg	500.99	J/mol×K	882.33	Joback Method
cpg	492.02	J/mol×K	842.92	Joback Method
cpg	482.18	J/mol×K	803.51	Joback Method
dvisc	0.0007544	Pa×s	481.01	Joback Method
dvisc	0.0000282	Pa×s	803.51	Joback Method
dvisc	0.0000401	Pa×s	749.76	Joback Method
dvisc	0.0000601	Pa×s	696.01	Joback Method
dvisc	0.0000965	Pa×s	642.26	Joback Method
dvisc	0.0001690	Pa×s	588.51	Joback Method
dvisc	0.0003312	Pa×s	534.76	Joback Method
hfust	31.66	kJ/mol	440.20	NIST Webbook

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C83056&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
dvisc: Dynamic viscosity
gf: Standard Gibbs free energy of formation
hf: Enthalpy of formation at standard conditions
hfus: Enthalpy of fusion at standard conditions

hfust:	Enthalpy of fusion 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