DPE

Other names: Benzene, 1,1'-(2,2,2-trichloroethylidene)bis-
1,1'-(2,2,2-trichloroethylidene)dibenzene
Inchi: InChI=1S/C14H11Cl3/c15-14(16,17)13(11-7-3-1-4-8-11)12-9-5-2-6-10-12/h1-10,13H
InchiKey: ZADGQTHIZZOKGE-UHFFFAOYSA-N
Formula: C14H11Cl3
SMILES: ClC(Cl)(Cl)C(c1ccccc1)c1ccccc1
Mol. weight [g/mol]: 285.60
CAS: 2971-22-4

Physical Properties

Property code	Value	Unit	Source
gf	256.43	kJ/mol	Joback Method
hf	79.52	kJ/mol	Joback Method
hfus	21.75	kJ/mol	Joback Method
hvap	62.78	kJ/mol	Joback Method
log10ws	-5.52		Crippen Method
logp	5.189		Crippen Method
mcvol	197.320	ml/mol	McGowan Method
pc	2540.49	kPa	Joback Method
rinpol	1926.00		NIST Webbook
rinpol	1926.00		NIST Webbook
tb	681.70	K	Joback Method
tc	951.93	K	Joback Method
tf	377.56	K	Joback Method
vc	0.734	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	455.16	J/mol×K	681.70	Joback Method
cpg	514.27	J/mol×K	906.89	Joback Method
cpg	504.79	J/mol×K	861.85	Joback Method
cpg	494.32	J/mol×K	816.81	Joback Method
cpg	482.66	J/mol×K	771.78	Joback Method

cpg	469.67	J/mol×K	726.74	Joback Method
cpg	522.90	J/mol×K	951.93	Joback Method
dvisc	0.0001183	Pa×s	681.70	Joback Method
dvisc	0.0001587	Pa×s	631.01	Joback Method
dvisc	0.0002239	Pa×s	580.32	Joback Method
dvisc	0.0003375	Pa×s	529.63	Joback Method
dvisc	0.0005548	Pa×s	478.94	Joback Method
dvisc	0.0010260	Pa×s	428.25	Joback Method
dvisc	0.0022381	Pa×s	377.56	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C2971224&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