Anthracene, 9,10-dichloro-

Other names: 9,10-Dichloroanthracene
Inchi: InChI=1S/C14H8Cl2/c15-13-9-5-1-2-6-10(9)14(16)12-8-4-3-7-11(12)13/h1-8H
InchiKey: FKDIWXZNKAZCBY-UHFFFAOYSA-N
Formula: C14H8Cl2
SMILES: Clc1c2ccccc2c(Cl)c2ccccc12
Mol. weight [g/mol]: 247.12
CAS: 605-48-1

Physical Properties

Property code	Value	Unit	Source
gf	339.96	kJ/mol	Joback Method
hf	220.49	kJ/mol	Joback Method
hfus	27.32	kJ/mol	Joback Method
hvap	63.07	kJ/mol	Joback Method
ie	7.58	eV	NIST Webbook
log10ws	-6.45		Crippen Method
logp	5.300		Crippen Method
mcvol	169.920	ml/mol	McGowan Method
pc	2890.51	kPa	Joback Method
tb	674.16	K	Joback Method
tc	935.50	K	Joback Method
tf	436.76	K	Joback Method
vc	0.653	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	378.73	J/mol×K	674.16	Joback Method
cpg	390.54	J/mol×K	717.72	Joback Method
cpg	401.34	J/mol×K	761.27	Joback Method
cpg	411.27	J/mol×K	804.83	Joback Method
cpg	420.48	J/mol×K	848.38	Joback Method
cpg	429.11	J/mol×K	891.94	Joback Method
cpg	437.30	J/mol×K	935.50	Joback Method

dvisc	0.0013758	Pa×s	436.76	Joback Method
dvisc	0.0010835	Pa×s	476.33	Joback Method
dvisc	0.0008851	Pa×s	515.89	Joback Method
dvisc	0.0007442	Pa×s	555.46	Joback Method
dvisc	0.0006403	Pa×s	595.03	Joback Method
dvisc	0.0005614	Pa×s	634.59	Joback Method
dvisc	0.0004998	Pa×s	674.16	Joback Method
hsubt	113.90 ± 4.50	kJ/mol	346.00	NIST Webbook
psub	2.20e-06	kPa	330.90	The effect of halogen hetero-atoms on the vapor pressures and thermodynamics of polycyclic aromatic compounds measured via the Knudsen effusion technique
psub	2.00e-06	kPa	330.80	The effect of halogen hetero-atoms on the vapor pressures and thermodynamics of polycyclic aromatic compounds measured via the Knudsen effusion technique
psub	2.70e-07	kPa	316.00	The effect of halogen hetero-atoms on the vapor pressures and thermodynamics of polycyclic aromatic compounds measured via the Knudsen effusion technique
psub	4.70e-06	kPa	337.70	The effect of halogen hetero-atoms on the vapor pressures and thermodynamics of polycyclic aromatic compounds measured via the Knudsen effusion technique

psub	5.70e-06	kPa	339.10	The effect of halogen hetero-atoms on the vapor pressures and thermodynamics of polycyclic aromatic compounds measured via the Knudsen effusion technique	
psub	7.10e-06	kPa	341.70	The effect of halogen hetero-atoms on the vapor pressures and thermodynamics of polycyclic aromatic compounds measured via the Knudsen effusion technique	
psub	8.70e-06	kPa	344.30	The effect of halogen hetero-atoms on the vapor pressures and thermodynamics of polycyclic aromatic compounds measured via the Knudsen effusion technique	
psub	1.27e-05	kPa	345.60	The effect of halogen hetero-atoms on the vapor pressures and thermodynamics of polycyclic aromatic compounds measured via the Knudsen effusion technique	
psub	1.44e-05	kPa	347.30	The effect of halogen hetero-atoms on the vapor pressures and thermodynamics of polycyclic aromatic compounds measured via the Knudsen effusion technique	

psub	1.67e-05	kPa	348.30	The effect of halogen hetero-atoms on the vapor pressures and thermodynamics of polycyclic aromatic compounds measured via the Knudsen effusion technique
psub	1.72e-05	kPa	348.90	The effect of halogen hetero-atoms on the vapor pressures and thermodynamics of polycyclic aromatic compounds measured via the Knudsen effusion technique
psub	3.70e-05	kPa	353.40	The effect of halogen hetero-atoms on the vapor pressures and thermodynamics of polycyclic aromatic compounds measured via the Knudsen effusion technique
psub	3.94e-05	kPa	353.60	The effect of halogen hetero-atoms on the vapor pressures and thermodynamics of polycyclic aromatic compounds measured via the Knudsen effusion technique
psub	3.74e-05	kPa	355.80	The effect of halogen hetero-atoms on the vapor pressures and thermodynamics of polycyclic aromatic compounds measured via the Knudsen effusion technique

psub	5.46e-05	kPa	357.90	The effect of halogen hetero-atoms on the vapor pressures and thermodynamics of polycyclic aromatic compounds measured via the Knudsen effusion technique	
psub	8.47e-05	kPa	363.50	The effect of halogen hetero-atoms on the vapor pressures and thermodynamics of polycyclic aromatic compounds measured via the Knudsen effusion technique	
psub	7.79e-05	kPa	364.40	The effect of halogen hetero-atoms on the vapor pressures and thermodynamics of polycyclic aromatic compounds measured via the Knudsen effusion technique	
psub	1.21e-04	kPa	367.50	The effect of halogen hetero-atoms on the vapor pressures and thermodynamics of polycyclic aromatic compounds measured via the Knudsen effusion technique	
psub	1.64e-04	kPa	368.50	The effect of halogen hetero-atoms on the vapor pressures and thermodynamics of polycyclic aromatic compounds measured via the Knudsen effusion technique	

psub	2.36e-04	kPa	376.00	The effect of halogen hetero-atoms on the vapor pressures and thermodynamics of polycyclic aromatic compounds measured via the Knudsen effusion technique

Sources

Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
The effect of halogen hetero-atoms on the vapor pressures and thermodynamics of polycyclic aromatic compounds measured via the Knudsen effusion technique:	https://www.doi.org/10.1016/j.jct.2007.09.006
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=C605481&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
hsubt:	Enthalpy of sublimation at a given temperature
hvap:	Enthalpy of vaporization at standard conditions
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
psub:	Sublimation pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume