P-xylene, 2,3,5,6-tetrachloro

Other names: 1,2,4,5-Tetrachloro-3,6-dimethylbenzene
2,3,5,6-tetrachloro-p-xylene
Benzene, 1,2,4,5-tetrachloro-3,6-dimethyl-
Inchi: InChI=1S/C8H6Cl4/c1-3-5(9)7(11)4(2)8(12)6(3)10/h1-2H3
InchiKey: CTSQZGJZQUVGBQ-UHFFFAOYSA-N
Formula: C8H6Cl4
SMILES: Cc1c(Cl)c(Cl)c(C)c(Cl)c1Cl
Mol. weight [g/mol]: 243.94
CAS: 877-10-1

Physical Properties

Property code	Value	Unit	Source
chs	-3926.20	kJ/mol	NIST Webbook
chs	-3923.90 ± 0.59	kJ/mol	NIST Webbook
gf	33.02	kJ/mol	Joback Method
hf	-92.23	kJ/mol	Joback Method
hfs	-174.20	kJ/mol	NIST Webbook
hfs	-176.00	kJ/mol	NIST Webbook
hfus	25.36	kJ/mol	Joback Method
hvap	56.53	kJ/mol	Joback Method
log10ws	-5.16		Crippen Method
logp	4.917		Crippen Method
mcvol	148.780	ml/mol	McGowan Method
pc	2835.36	kPa	Joback Method
tb	583.74	K	Joback Method
tc	821.93	K	Joback Method
tf	370.00 ± 1.00	K	NIST Webbook
tf	521.00 ± 2.00	K	NIST Webbook
vc	0.572	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	303.52	J/mol×K	782.23	Joback Method

cpg	297.05	J/mol×K	742.54	Joback Method
cpg	290.12	J/mol×K	702.84	Joback Method
cpg	282.74	J/mol×K	663.14	Joback Method
cpg	274.90	J/mol×K	623.44	Joback Method
cpg	266.59	J/mol×K	583.74	Joback Method
cpg	309.55	J/mol×K	821.93	Joback Method
dvisc	0.0009119	Pa×s	388.62	Joback Method
dvisc	0.0002454	Pa×s	583.74	Joback Method
dvisc	0.0002863	Pa×s	551.22	Joback Method
dvisc	0.0003406	Pa×s	518.70	Joback Method
dvisc	0.0004147	Pa×s	486.18	Joback Method
dvisc	0.0005193	Pa×s	453.66	Joback Method
dvisc	0.0006733	Pa×s	421.14	Joback Method
hfust	22.59	kJ/mol	368.20	NIST Webbook
hfust	22.59	kJ/mol	368.20	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.40947e+01
Coeff. B	-4.28666e+03
Coeff. C	-9.30910e+01
Temperature range (K), min.	403.56
Temperature range (K), max.	581.14

Sources

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

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C877101&Units=SI

The Yaws Handbook of Vapor Pressure: https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

Legend

chs:	Standard solid enthalpy of combustion
cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfs:	Solid phase 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
pvap:	Vapor pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume