Benzene, 1,4-dichloro-2,5-dimethyl-

Other names:	p-Xylene, 2,5-dichloro-
	2,5-Dichloro-p-xylene
	2,5-Dichloro-para-xylene
	2,5-Dichloro-1,4-dimethylbenzene
Inchi:	InChI=1S/C8H8Cl2/c1-5-3-8(10)6(2)4-7(5)9/h3-4H,1-2H3
InchiKey:	UTGSRNVBAFCOEU-UHFFFAOYSA-N
Formula:	C8H8Cl2
SMILES:	Cc1cc(Cl)c(C)cc1Cl
Mol. weight [g/mol]:	175.06
CAS:	1124-05-6

Physical Properties

Property code	Value	Unit	Source
gf	76.14	kJ/mol	Joback Method
hf	-37.81	kJ/mol	Joback Method
hfus	17.74	kJ/mol	Joback Method
hvap	46.43	kJ/mol	Joback Method
log10ws	-3.79		Crippen Method
logp	3.610		Crippen Method
mcvol	124.300	ml/mol	McGowan Method
pc	3177.55	kPa	Joback Method
rinpol	1220.00		NIST Webbook
rinpol	1215.00		NIST Webbook
rinpol	1242.00		NIST Webbook
rinpol	1218.00		NIST Webbook
tb	495.20	K	NIST Webbook
tc	725.78	K	Joback Method
tf	303.74	K	Joback Method
vc	0.473	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	279.32	J/mol×K	725.78	Joback Method

cpg	271.75	J/mol×K	687.97	Joback Method
cpg	263.69	J/mol×K	650.16	Joback Method
cpg	255.11	J/mol×K	612.35	Joback Method
cpg	246.01	J/mol×K	574.54	Joback Method
cpg	236.36	J/mol×K	536.73	Joback Method
cpg	226.14	J/mol×K	498.92	Joback Method
dvisc	0.0013268	Pa×s	303.74	Joback Method
dvisc	0.0002532	Pa×s	498.92	Joback Method
dvisc	0.0003031	Pa×s	466.39	Joback Method
dvisc	0.0003727	Pa×s	433.86	Joback Method
dvisc	0.0004739	Pa×s	401.33	Joback Method
dvisc	0.0006287	Pa×s	368.80	Joback Method
dvisc	0.0008809	Pa×s	336.27	Joback Method
hvapt	52.70	kJ/mol	483.00	NIST Webbook

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=C1124056&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

hvap: Enthalpy of vaporization at standard conditions

hvapt: Enthalpy of vaporization at a given temperature

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