

Benzene, 1,4-bis(dichloromethyl)-

Other names:	1,4-Bis(dichloromethyl)benzene «alpha», «alpha», «alpha»', «alpha»'-tetrachloro-p-xylene Â«alphaÂ», Â«alphaÂ», Â«alphaÂ»', Â«alphaÂ»'-tetrachloro-p-xylene
Inchi:	InChI=1S/C8H6Cl4/c9-7(10)5-1-2-6(4-3-5)8(11)12/h1-4,7-8H
InchiKey:	VOWDXSFJQOEFSH-UHFFFAOYSA-N
Formula:	C8H6Cl4
SMILES:	C1C(Cl)C(C(Cl)Cl)CC1
Mol. weight [g/mol]:	243.94
CAS:	7398-82-5

Physical Properties

Property code	Value	Unit	Source
gf	66.66	kJ/mol	Joback Method
hf	-56.91	kJ/mol	Joback Method
hfus	19.87	kJ/mol	Joback Method
hvap	53.10	kJ/mol	Joback Method
log10ws	-4.76		Crippen Method
logp	4.639		Crippen Method
mcvol	148.780	ml/mol	McGowan Method
pc	3079.57	kPa	Joback Method
tb	562.94	K	Joback Method
tc	807.80	K	Joback Method
tf	308.54	K	Joback Method
vc	0.559	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	272.66	J/mol×K	562.94	Joback Method
cpg	315.06	J/mol×K	766.99	Joback Method
cpg	308.03	J/mol×K	726.18	Joback Method
cpg	300.32	J/mol×K	685.37	Joback Method
cpg	291.89	J/mol×K	644.56	Joback Method
cpg	282.69	J/mol×K	603.75	Joback Method

cpg	321.46	J/mol×K	807.80	Joback Method
dvisc	0.0002337	Paxs	562.94	Joback Method
dvisc	0.0003035	Paxs	520.54	Joback Method
dvisc	0.0004129	Paxs	478.14	Joback Method
dvisc	0.0005964	Paxs	435.74	Joback Method
dvisc	0.0009326	Paxs	393.34	Joback Method
dvisc	0.0016244	Paxs	350.94	Joback Method
dvisc	0.0032959	Paxs	308.54	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.40639e+01
Coeff. B	-4.27269e+03
Coeff. C	-9.30910e+01
Temperature range (K), min.	403.24
Temperature range (K), max.	581.27

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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=C7398825&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

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
pvap:	Vapor pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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