

Benzene, 1,2,3-trichloro-4-methyl-

Other names:	2,3,4-Trichlorotoluene
Inchi:	InChI=1S/C7H5Cl3/c1-4-2-3-5(8)7(10)6(4)9/h2-3H,1H3
InchiKey:	LHOGNQZQKDZOBP-UHFFFAOYSA-N
Formula:	C7H5Cl3
SMILES:	Cc1ccc(Cl)c(Cl)c1Cl
Mol. weight [g/mol]:	195.47
CAS:	7359-72-0

Physical Properties

Property code	Value	Unit	Source
gf	55.79	kJ/mol	Joback Method
hf	-32.91	kJ/mol	Joback Method
hfus	19.35	kJ/mol	Joback Method
hvap	48.59	kJ/mol	Joback Method
log10ws	-4.00		Crippen Method
logp	3.955		Crippen Method
mcvol	122.450	ml/mol	McGowan Method
pc	3399.94	kPa	Joback Method
tb	513.47	K	Joback Method
tc	749.79	K	Joback Method
tf	322.39	K	Joback Method
vc	0.467	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	207.21	J/mol×K	513.47	Joback Method
cpg	215.47	J/mol×K	552.86	Joback Method
cpg	223.21	J/mol×K	592.24	Joback Method
cpg	230.46	J/mol×K	631.63	Joback Method
cpg	237.23	J/mol×K	671.02	Joback Method
cpg	243.55	J/mol×K	710.40	Joback Method
cpg	249.42	J/mol×K	749.79	Joback Method
dvisc	0.0013398	Pa×s	322.39	Joback Method

dvisc	0.0009161	Pa×s	354.24	Joback Method
dvisc	0.0006669	Pa×s	386.08	Joback Method
dvisc	0.0005096	Pa×s	417.93	Joback Method
dvisc	0.0004045	Pa×s	449.78	Joback Method
dvisc	0.0003311	Pa×s	481.62	Joback Method
dvisc	0.0002778	Pa×s	513.47	Joback Method

Sources

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=C7359720&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
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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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