

Phenol, 2-chloro-4-methyl-

Other names:	p-Cresol, 2-chloro- 2-Chloro-p-cresol 2-Chloro-4-methylphenol
Inchi:	InChI=1S/C7H7ClO/c1-5-2-3-7(9)6(8)4-5/h2-4,9H,1H3
InchiKey:	AQJFATAFTQCRGC-UHFFFAOYSA-N
Formula:	C7H7ClO
SMILES:	Cc1ccc(O)c(Cl)c1
Mol. weight [g/mol]:	142.58
CAS:	6640-27-3

Physical Properties

Property code	Value	Unit	Source
gf	-55.71	kJ/mol	Joback Method
hf	-155.80	kJ/mol	Joback Method
hfus	17.52	kJ/mol	Joback Method
hvap	51.51	kJ/mol	Joback Method
log10ws	-2.18		Crippen Method
logp	2.354		Crippen Method
mcvol	103.840	ml/mol	McGowan Method
pc	4678.49	kPa	Joback Method
rinpol	1287.00		NIST Webbook
tb	468.70	K	NIST Webbook
tc	746.12	K	Joback Method
tf	349.23	K	Joback Method
vc	0.335	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	206.51	J/mol×K	509.27	Joback Method
cpg	215.97	J/mol×K	548.75	Joback Method
cpg	224.67	J/mol×K	588.22	Joback Method
cpg	232.68	J/mol×K	627.70	Joback Method
cpg	240.10	J/mol×K	667.17	Joback Method

cpg	246.99	J/mol×K	706.65	Joback Method
cpg	253.43	J/mol×K	746.12	Joback Method
dvisc	0.0023623	Pa×s	349.23	Joback Method
dvisc	0.0011285	Pa×s	375.90	Joback Method
dvisc	0.0005946	Pa×s	402.58	Joback Method
dvisc	0.0003392	Pa×s	429.25	Joback Method
dvisc	0.0002067	Pa×s	455.92	Joback Method
dvisc	0.0001330	Pa×s	482.60	Joback Method
dvisc	0.0000896	Pa×s	509.27	Joback Method

Sources

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=C6640273&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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