m-Toluidine, 4-chloro-

Other names: Benzenamine, 4-chloro-3-methyl-
3-Methyl-4-chloroaniline
4-Chloro-3-methylaniline
5-Amino-2-chlorotoluene
Inchi: InChI=1S/C7H8ClN/c1-5-4-6(9)2-3-7(5)8/h2-4H,9H2,1H3
InchiKey: HIHCTGNZNHSZPP-UHFFFAOYSA-N
Formula: C7H8ClN
SMILES: Cc1cc(N)ccc1Cl
Mol. weight [g/mol]: 141.60
CAS: 7149-75-9

Physical Properties

Property code	Value	Unit	Source
gf	155.73	kJ/mol	Joback Method
hf	43.83	kJ/mol	Joback Method
hfus	16.54	kJ/mol	Joback Method
hvap	49.80	kJ/mol	Joback Method
log10ws	-2.27		Crippen Method
logp	2.231		Crippen Method
mcvol	107.950	ml/mol	McGowan Method
pc	4062.13	kPa	Joback Method
tb	506.16	K	Joback Method
tc	741.33	K	Joback Method
tf	333.29	K	Joback Method
vc	0.398	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	211.08	J/mol×K	506.16	Joback Method
cpg	221.33	J/mol×K	545.35	Joback Method
cpg	230.94	J/mol×K	584.55	Joback Method
cpg	239.95	J/mol×K	623.74	Joback Method
cpg	248.37	J/mol×K	662.94	Joback Method

cpg	256.22	J/mol×K	702.13	Joback Method
cpg	263.54	J/mol×K	741.33	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=C7149759&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

cpg:	Ideal gas heat capacity
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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