Benzene, (3-chloro-1-methylpropyl)-

Other names:	1-chloro-3-phenylbutane
Inchi:	InChI=1S/C10H13Cl/c1-9(7-8-11)10-5-3-2-4-6-10/h2-6,9H,7-8H2,1H3
InchiKey:	UANCUAZOWOJXPU-UHFFFAOYSA-N
Formula:	C10H13Cl
SMILES:	CC(CCCl)c1ccccc1
Mol. weight [g/mol]:	168.66
CAS:	13556-61-1

Physical Properties

Property code	Value	Unit	Source
gf	131.36	kJ/mol	Joback Method
hf	-34.22	kJ/mol	Joback Method
hfus	16.37	kJ/mol	Joback Method
hvap	44.13	kJ/mol	Joback Method
log10ws	-3.23		Crippen Method
logp	3.419		Crippen Method
mcvol	140.240	ml/mol	McGowan Method
pc	2841.41	kPa	Joback Method
tb	491.87	K	Joback Method
tc	707.30	K	Joback Method
tf	243.80	K	Joback Method
vc	0.530	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	285.46	J/mol×K	491.87	Joback Method
cpg	300.25	J/mol×K	527.77	Joback Method
cpg	314.13	J/mol×K	563.68	Joback Method
cpg	327.16	J/mol×K	599.58	Joback Method
cpg	339.35	J/mol×K	635.49	Joback Method
cpg	350.77	J/mol×K	671.39	Joback Method
cpg	361.43	J/mol×K	707.30	Joback Method
dvisc	0.0050638	Pa×s	243.80	Joback Method

dvisc	0.0020818	Pa×s	285.14	Joback Method
dvisc	0.0010719	Pa×s	326.49	Joback Method
dvisc	0.0006408	Pa×s	367.84	Joback Method
dvisc	0.0004250	Pa×s	409.18	Joback Method
dvisc	0.0003040	Pa×s	450.52	Joback Method
dvisc	0.0002300	Pa×s	491.87	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=C13556611&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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