Cyclohexane, 2-chloro-4-methyl-1-(1-methylethyl)-, [1S-(1«alpha»,2«beta»,4«beta»)]-

Other names:	(-)-Menthyl chloride p-Menthane, 3-chloro-, (1R,3R,4S)-(-)- l-Menthyl chloride [1S-(1«alpha»,2«beta»,4«beta»)]-2-chloro-1-isopropyl-4-methylcyclohexane
Inchi:	InChI=1S/C10H19Cl/c1-7(2)9-5-4-8(3)6-10(9)11/h7-10H,4-6H2,1-3H3
InchiKey:	OMLOJNNKKPNVKN-UHFFFAOYSA-N
Formula:	C10H19Cl
SMILES:	CC1CCC(C(C)C)C(Cl)C1
Mol. weight [g/mol]:	174.71
CAS:	16052-42-9

Physical Properties

Property code	Value	Unit	Source
gf	27.98	kJ/mol	Joback Method
hf	-257.11	kJ/mol	Joback Method
hfus	16.31	kJ/mol	Joback Method
hvap	41.66	kJ/mol	Joback Method
log10ws	-3.44		Crippen Method
logp	3.686		Crippen Method
mcvol	153.140	ml/mol	McGowan Method
pc	2338.29	kPa	Joback Method
tb	475.40	K	Joback Method
tc	682.45	K	Joback Method
tf	216.28	K	Joback Method
vc	0.570	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	334.93	J/mol×K	475.40	Joback Method
cpg	354.94	J/mol×K	509.91	Joback Method
cpg	373.98	J/mol×K	544.42	Joback Method
cpg	392.07	J/mol×K	578.93	Joback Method
cpg	409.21	J/mol×K	613.43	Joback Method

cpg	425.44	J/mol×K	647.94	Joback Method
cpg	440.77	J/mol×K	682.45	Joback Method
dvisc	0.0044105	Pa×s	216.28	Joback Method
dvisc	0.0019062	Pa×s	259.47	Joback Method
dvisc	0.0010467	Pa×s	302.65	Joback Method
dvisc	0.0006676	Pa×s	345.84	Joback Method
dvisc	0.0004705	Pa×s	389.03	Joback Method
dvisc	0.0003556	Pa×s	432.21	Joback Method
dvisc	0.0002828	Pa×s	475.40	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	374.50	K	2.80	NIST Webbook

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C16052429&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method: https://en.wikipedia.org/wiki/Joback_method

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
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume