Levomenthol

Other names:	Cyclohexanol, 5-methyl-2-(1-methylethyl)-, [1R-(1«alpha»,2«beta»,5«alpha»)]- L-(-)-Menthol Menthol, (1R,3R,4S)-(-)- (-)-Menthol (R)-(-)-Menthol U.S.P. Menthol 1R-Menthol (1R,2S,5R)-(-)-Menthol (-)-Menthyl alcohol (1R-(1-«alpha»,2-«beta»,5-«alpha»))-5-Methyl-2-(1-methylethyl)cyclohexanol L-Menthol (1R)-(-)-Menthol (1R,2S,5R)-2-Isopropyl-5-methylcyclohexanol Cyclohexanol, 5-methyl-2-(1-methylethyl)-, (1R,2S,5R)- NSC 62788 1-Menthol (1R,3R,4S)-(-)-menthol
Inchi:	InChI=1S/C10H20O/c1-7(2)9-5-4-8(3)6-10(9)11/h7-11H,4-6H2,1-3H3/t8-,9+,10-/m0/s1
InchiKey:	NOOLISFMXDJSKH-AEJSXWLSSA-N
Formula:	C10H20O
SMILES:	CC1CCC(C(C)C)C(O)C1
Mol. weight [g/mol]:	156.27
CAS:	2216-51-5

Physical Properties

Property code	Value	Unit	Source
gf	-96.91	kJ/mol	Joback Method
hf	-393.60	kJ/mol	Joback Method
hfus	16.20	kJ/mol	Joback Method
hvap	56.60	kJ/mol	NIST Webbook
log10ws	-2.55		Crippen Method
logp	2.440		Crippen Method
mcvol	146.770	ml/mol	McGowan Method
pc	2659.77	kPa	Joback Method
rinpol	1155.38		NIST Webbook
rinpol	1178.00		NIST Webbook
rinpol	1171.00		NIST Webbook

rinpol	1172.00		NIST Webbook
rinpol	1178.00		NIST Webbook
rinpol	1150.40		NIST Webbook
rinpol	1158.58		NIST Webbook
rinpol	1176.76		NIST Webbook
rinpol	1158.58		NIST Webbook
rinpol	1161.95		NIST Webbook
rinpol	1165.41		NIST Webbook
rinpol	1169.10		NIST Webbook
rinpol	1172.79		NIST Webbook
rinpol	1152.38		NIST Webbook
rinpol	1180.78		NIST Webbook
rinpol	1143.95		NIST Webbook
rinpol	1146.99		NIST Webbook
rinpol	1149.57		NIST Webbook
rinpol	1152.38		NIST Webbook
rinpol	1176.76		NIST Webbook
ripol	1596.00		NIST Webbook
ripol	1626.00		NIST Webbook
ripol	1626.00		NIST Webbook
ripol	1652.00		NIST Webbook
ripol	1642.00		NIST Webbook
ripol	1651.00		NIST Webbook
ripol	1639.00		NIST Webbook
ripol	1599.00		NIST Webbook
ripol	1612.00		NIST Webbook
tb	485.20	K	NIST Webbook
tb	489.60	K	NIST Webbook
tc	719.67	K	Joback Method
tf	314.65 ± 1.50	K	NIST Webbook
tf	315.40 ± 0.50	K	NIST Webbook
vc	0.539	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	370.36	J/mol×K	530.15	Joback Method
cpg	387.84	J/mol×K	561.74	Joback Method
cpg	404.52	J/mol×K	593.32	Joback Method
cpg	420.40	J/mol×K	624.91	Joback Method
cpg	435.50	J/mol×K	656.49	Joback Method

cpg	449.82	J/mol×K	688.08	Joback Method
cpg	463.40	J/mol×K	719.67	Joback Method
dvisc	0.0022592	Pa×s	341.50	Joback Method
dvisc	0.0077902	Pa×s	294.34	Joback Method
dvisc	0.0430815	Pa×s	247.18	Joback Method
dvisc	0.0008847	Pa×s	388.66	Joback Method
dvisc	0.0004244	Pa×s	435.83	Joback Method
dvisc	0.0002350	Pa×s	482.99	Joback Method
dvisc	0.0001446	Pa×s	530.15	Joback Method
hfust	11.88	kJ/mol	316.20	NIST Webbook
hsubt	95.80 ± 4.80	kJ/mol	289.00	NIST Webbook
hvapt	59.10	kJ/mol	430.00	NIST Webbook
hvapt	58.20	kJ/mol	407.00	NIST Webbook

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=C2216515&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
hfust: Enthalpy of fusion at a given temperature
hsubt: Enthalpy of sublimation at a given temperature
hvap: Enthalpy of vaporization at standard conditions
hvapt: Enthalpy of vaporization at a given temperature
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

ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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