Cyclohexanemethanol

Other names:	(hydroxymethyl)cyclohexane
	Benzyl alcohol, hexahydro-
	Cyclohexanecarbinol
	Cyclohexylmethyl alcohol
	Methanol, cyclohexyl-
	NSC 5288
	USAF DO-49
	cyclohexylcarbinol
	cyclohexylmethanol
	hexahydrobenzyl alcohol
Inchi:	InChI=1S/C7H14O/c8-6-7-4-2-1-3-5-7/h7-8H,1-6H2
InchiKey:	VSSAZBXXNIABDN-UHFFFAOYSA-N
Formula:	C7H14O
SMILES:	OCC1CCCCC1
Mol. weight [g/mol]:	114.19
CAS:	100-49-2

Physical Properties

Property code	Value	Unit	Source
affp	802.10	kJ/mol	NIST Webbook
basg	771.70	kJ/mol	NIST Webbook
chl	-4377.30	kJ/mol	NIST Webbook
gf	-104.31	kJ/mol	Joback Method
hf	-285.72	kJ/mol	Joback Method
hfl	-378.00	kJ/mol	NIST Webbook
hfus	9.81	kJ/mol	Joback Method
hvap	48.28	kJ/mol	Joback Method
log10ws	-1.67		Crippen Method
logp	1.559		Crippen Method
mcvol	104.500	ml/mol	McGowan Method
pc	3940.66	kPa	Joback Method
tb	454.20	K	NIST Webbook
tb	456.20	K	NIST Webbook
tc	664.09	K	Joback Method
tf	236.85	K	Joback Method
vc	0.380	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	270.29	J/mol×K	567.69	Joback Method
cpg	304.24	J/mol×K	664.09	Joback Method
cpg	293.54	J/mol×K	631.95	Joback Method
cpg	282.23	J/mol×K	599.82	Joback Method
cpg	257.70	J/mol×K	535.56	Joback Method
cpg	244.45	J/mol×K	503.42	Joback Method
cpg	230.52	J/mol×K	471.29	Joback Method
cpl	230.56	J/mol×K	293.83	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	275.87	J/mol×K	334.67	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	276.54	J/mol×K	334.67	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	270.55	J/mol×K	329.57	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	271.38	J/mol×K	329.57	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	265.56	J/mol×K	324.46	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	265.98	J/mol×K	324.46	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	259.49	J/mol×K	319.35	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	260.24	J/mol×K	319.35	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	253.34	J/mol×K	314.25	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols

cpl	254.26	J/mol×K	314.25	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	281.78	J/mol×K	339.77	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	247.94	J/mol×K	309.14	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	241.62	J/mol×K	304.04	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	242.28	J/mol×K	304.04	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	235.55	J/mol×K	298.93	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	247.36	J/mol×K	309.14	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	229.98	J/mol×K	293.83	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	280.86	J/mol×K	339.77	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	287.35	J/mol×K	344.88	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	286.52	J/mol×K	344.88	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	236.46	J/mol×K	298.93	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	292.34	J/mol×K	349.98	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	291.51	J/mol×K	349.98	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	296.83	J/mol×K	355.09	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols

cpl	199.13	J/mol×K	258.09	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	198.88	J/mol×K	258.09	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	202.87	J/mol×K	263.20	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	202.54	J/mol×K	263.20	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	207.03	J/mol×K	268.30	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	206.61	J/mol×K	268.30	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	211.52	J/mol×K	273.41	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	210.94	J/mol×K	273.41	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	215.68	J/mol×K	278.51	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	215.18	J/mol×K	278.51	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	220.83	J/mol×K	283.62	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	219.83	J/mol×K	283.62	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	225.32	J/mol×K	288.72	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
cpl	224.74	J/mol×K	288.72	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols

cpl	296.33	J/mol×K	355.09	Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols
dvisc	0.0757236	Pa×s	236.85	Joback Method
dvisc	0.0140832	Pa×s	275.92	Joback Method
dvisc	0.0039756	Pa×s	315.00	Joback Method
dvisc	0.0014837	Pa×s	354.07	Joback Method
dvisc	0.0006736	Pa×s	393.14	Joback Method
dvisc	0.0003527	Pa×s	432.22	Joback Method
dvisc	0.0002056	Pa×s	471.29	Joback Method
rhol	900.67	kg/m3	333.15	Density, Viscosity, Refractive Index, and Surface Tension for Six Binary Systems of Adamantane Derivatives with 1-Heptanol and Cyclohexylmethanol
rhol	929.76	kg/m3	293.15	Density, Viscosity, Refractive Index, and Surface Tension for Six Binary Systems of Adamantane Derivatives with 1-Heptanol and Cyclohexylmethanol
rhol	900.78	kg/m3	333.15	Density, Viscosity, and Freezing Point for Four Binary Systems of n-Dodecane or Methylcyclohexane Mixed with 1-Heptanol or Cyclohexylmethanol
rhol	904.57	kg/m3	328.15	Density, Viscosity, and Freezing Point for Four Binary Systems of n-Dodecane or Methylcyclohexane Mixed with 1-Heptanol or Cyclohexylmethanol
rhol	908.31	kg/m3	323.15	Density, Viscosity, and Freezing Point for Four Binary Systems of n-Dodecane or Methylcyclohexane Mixed with 1-Heptanol or Cyclohexylmethanol

rhol	912.00	kg/m3	318.15	Density, Viscosity, and Freezing Point for Four Binary Systems of n-Dodecane or Methylcyclohexane Mixed with 1-Heptanol or Cyclohexylmethanol
rhol	915.66	kg/m3	313.15	Density, Viscosity, and Freezing Point for Four Binary Systems of n-Dodecane or Methylcyclohexane Mixed with 1-Heptanol or Cyclohexylmethanol
rhol	919.28	kg/m3	308.15	Density, Viscosity, and Freezing Point for Four Binary Systems of n-Dodecane or Methylcyclohexane Mixed with 1-Heptanol or Cyclohexylmethanol
rhol	926.25	kg/m3	298.15	Density, Viscosity, Refractive Index, and Surface Tension for Six Binary Systems of Adamantane Derivatives with 1-Heptanol and Cyclohexylmethanol
rhol	926.43	kg/m3	298.15	Density, Viscosity, and Freezing Point for Four Binary Systems of n-Dodecane or Methylcyclohexane Mixed with 1-Heptanol or Cyclohexylmethanol
rhol	929.96	kg/m3	293.15	Density, Viscosity, and Freezing Point for Four Binary Systems of n-Dodecane or Methylcyclohexane Mixed with 1-Heptanol or Cyclohexylmethanol

rhol	922.71	kg/m3	303.15	Density, Viscosity, Refractive Index, and Surface Tension for Six Binary Systems of Adamantane Derivatives with 1-Heptanol and Cyclohexylmethanol
rhol	919.14	kg/m3	308.15	Density, Viscosity, Refractive Index, and Surface Tension for Six Binary Systems of Adamantane Derivatives with 1-Heptanol and Cyclohexylmethanol
rhol	915.53	kg/m3	313.15	Density, Viscosity, Refractive Index, and Surface Tension for Six Binary Systems of Adamantane Derivatives with 1-Heptanol and Cyclohexylmethanol
rhol	911.88	kg/m3	318.15	Density, Viscosity, Refractive Index, and Surface Tension for Six Binary Systems of Adamantane Derivatives with 1-Heptanol and Cyclohexylmethanol
rhol	908.19	kg/m3	323.15	Density, Viscosity, Refractive Index, and Surface Tension for Six Binary Systems of Adamantane Derivatives with 1-Heptanol and Cyclohexylmethanol
rhol	904.45	kg/m3	328.15	Density, Viscosity, Refractive Index, and Surface Tension for Six Binary Systems of Adamantane Derivatives with 1-Heptanol and Cyclohexylmethanol

rhol	922.87	kg/m3	303.15	Density, Viscosity, and Freezing Point for Four Binary Systems of n-Dodecane or Methylcyclohexane Mixed with 1-Heptanol or Cyclohexylmethanol

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=C100492&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Heat Capacities of 2-Propenol and Selected Cyclohexylalcohols:	https://www.doi.org/10.1016/j.tca.2014.03.043
Density, Viscosity, and Freezing Point for Four Binary Systems of n-Dodecane or Methylcyclohexane Mixed with 1-Heptanol or Cyclohexylmethanol:	https://www.doi.org/10.1021/acs.jced.6b00688
Density, Viscosity, Refractive Index, and Surface Tension for Six Binary Systems of Adamantane Derivatives with 1-Heptanol and Cyclohexylmethanol:	https://www.doi.org/10.1021/je500381c

Legend

affp:	Proton affinity
basg:	Gas basicity
chl:	Standard liquid enthalpy of combustion
cpg:	Ideal gas heat capacity
cpl:	Liquid phase heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfl:	Liquid phase 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
rhol:	Liquid Density
tb:	Normal Boiling Point Temperature

tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume