

# 4-Morpholineethanol

<b>Other names:</b>	2-(4-Morpholinyl)-1-ethanol 2-(4-Morpholinyl)ethanol 2-Morpholinoethanol 4-(2-Hydroxyethyl)morpholine Ethanol, 2-(morpholinyl)- Ethanol, 2-morpholino- Morpholineethanol N-(2-Hydroxyethyl)morpholin N-(2-hydroxyethyl)morpholine N-.beta.-hydroxyethylmorpholine N-«beta»-Hydroxyethylmorpholine NSC 1946 «beta»-Morpholinoethanol «beta»-Oxyaethyl-morpholin
<b>Inchi:</b>	InChI=1S/C6H13NO2/c8-4-1-7-2-5-9-6-3-7/h8H,1-6H2
<b>InchiKey:</b>	KKFDCBRMNSAAW-UHFFFAOYSA-N
<b>Formula:</b>	C6H13NO2
<b>SMILES:</b>	OCCN1CCOCC1
<b>Mol. weight [g/mol]:</b>	131.17
<b>CAS:</b>	622-40-2

## Physical Properties

Property code	Value	Unit	Source
log10ws	0.85		Crippen Method
logp	-0.689		Crippen Method
mcvol	106.260	ml/mol	McGowan Method
tf	274.38 ± 0.40	K	NIST Webbook

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
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cpl	284.90	J/mol×K	353.15	Molar Heat Capacity (Cp) of Aqueous Cyclic Amine Solutions from (298.15 to 353.15) K
cpl	265.30	J/mol×K	303.15	Molar Heat Capacity (Cp) of Aqueous Cyclic Amine Solutions from (298.15 to 353.15) K
cpl	267.10	J/mol×K	308.15	Molar Heat Capacity (Cp) of Aqueous Cyclic Amine Solutions from (298.15 to 353.15) K
cpl	269.20	J/mol×K	313.15	Molar Heat Capacity (Cp) of Aqueous Cyclic Amine Solutions from (298.15 to 353.15) K
cpl	270.80	J/mol×K	318.15	Molar Heat Capacity (Cp) of Aqueous Cyclic Amine Solutions from (298.15 to 353.15) K
cpl	272.60	J/mol×K	323.15	Molar Heat Capacity (Cp) of Aqueous Cyclic Amine Solutions from (298.15 to 353.15) K
cpl	274.30	J/mol×K	328.15	Molar Heat Capacity (Cp) of Aqueous Cyclic Amine Solutions from (298.15 to 353.15) K
cpl	276.20	J/mol×K	333.15	Molar Heat Capacity (Cp) of Aqueous Cyclic Amine Solutions from (298.15 to 353.15) K
cpl	278.70	J/mol×K	338.15	Molar Heat Capacity (Cp) of Aqueous Cyclic Amine Solutions from (298.15 to 353.15) K
cpl	281.00	J/mol×K	343.15	Molar Heat Capacity (Cp) of Aqueous Cyclic Amine Solutions from (298.15 to 353.15) K

cpl	283.20	J/molxK	348.15	Molar Heat Capacity (Cp) of Aqueous Cyclic Amine Solutions from (298.15 to 353.15) K
cpl	263.90	J/molxK	298.15	Molar Heat Capacity (Cp) of Aqueous Cyclic Amine Solutions from (298.15 to 353.15) K
dvisc	0.0265820	Paxs	293.15	Volumetric and viscometric properties of aqueous solutions of N-(2-hydroxyethyl)morpholine at T = (293.15, 303.15, 313.15, 323.15, 333.15) K
dvisc	0.0219860	Paxs	303.15	Volumetric and viscometric properties of aqueous solutions of N-(2-hydroxyethyl)morpholine at T = (293.15, 303.15, 313.15, 323.15, 333.15) K
dvisc	0.0173150	Paxs	313.15	Volumetric and viscometric properties of aqueous solutions of N-(2-hydroxyethyl)morpholine at T = (293.15, 303.15, 313.15, 323.15, 333.15) K
dvisc	0.0128580	Paxs	323.15	Volumetric and viscometric properties of aqueous solutions of N-(2-hydroxyethyl)morpholine at T = (293.15, 303.15, 313.15, 323.15, 333.15) K
dvisc	0.0082840	Paxs	333.15	Volumetric and viscometric properties of aqueous solutions of N-(2-hydroxyethyl)morpholine at T = (293.15, 303.15, 313.15, 323.15, 333.15) K

rho1	1076.58	kg/m3	293.15	Densities and volumetric properties of (N-(2-hydroxyethyl)morpholine + ethanol, + 1-propanol, + 2-propanol, + 1-butanol, and + 2-butanol) at (293.15, 298.15, 303.15, 313.15, and 323.15) K
rho1	1071.30	kg/m3	298.15	Densities and volumetric properties of (N-(2-hydroxyethyl)morpholine + ethanol, + 1-propanol, + 2-propanol, + 1-butanol, and + 2-butanol) at (293.15, 298.15, 303.15, 313.15, and 323.15) K
rho1	1066.51	kg/m3	303.15	Densities and volumetric properties of (N-(2-hydroxyethyl)morpholine + ethanol, + 1-propanol, + 2-propanol, + 1-butanol, and + 2-butanol) at (293.15, 298.15, 303.15, 313.15, and 323.15) K
rho1	1059.19	kg/m3	313.15	Densities and volumetric properties of (N-(2-hydroxyethyl)morpholine + ethanol, + 1-propanol, + 2-propanol, + 1-butanol, and + 2-butanol) at (293.15, 298.15, 303.15, 313.15, and 323.15) K
rho1	1052.64	kg/m3	323.15	Densities and volumetric properties of (N-(2-hydroxyethyl)morpholine + ethanol, + 1-propanol, + 2-propanol, + 1-butanol, and + 2-butanol) at (293.15, 298.15, 303.15, 313.15, and 323.15) K

# Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	500.20	K	101.00	NIST Webbook

## Sources

Molar excess enthalpy (Hm E) for systems of aqueous piperazine	<a href="https://www.doi.org/10.1016/j.jct.2015.06.006">https://www.doi.org/10.1016/j.jct.2015.06.006</a>
Molar Heat Capacity (Cp) of Aqueous Cyclic Amine Solutions from 298.15 to 353.15 K	<a href="https://www.doi.org/10.1021/je400178k">https://www.doi.org/10.1021/je400178k</a>
McGowan Method:	<a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>
NIST Webbook:	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C622402&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C622402&amp;Units=SI</a>
Crippen Method:	<a href="http://pubs.acs.org/doi/abs/10.1021/ci990307i">http://pubs.acs.org/doi/abs/10.1021/ci990307i</a>
Crippen Method:	<a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>
Densities and volumetric properties of (N-(2-hydroxyethyl)morpholine + ethanol) at (293.15, 303.15, 313.15, 323.15, 333.15) K:	<a href="https://www.doi.org/10.1016/j.jct.2007.11.010">https://www.doi.org/10.1016/j.jct.2007.11.010</a>
Volumetric and dynamic properties of (N-(2-hydroxyethyl)morpholine + ethanol) at (293.15, 303.15, 313.15, 323.15, 333.15) K:	<a href="https://www.doi.org/10.1016/j.jct.2008.01.007">https://www.doi.org/10.1016/j.jct.2008.01.007</a>

## Legend

cpl:	Liquid phase heat capacity
dvisc:	Dynamic viscosity
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
rho:	Liquid Density
tbrp:	Boiling point at reduced pressure
tf:	Normal melting (fusion) point

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