

Ethanol, 2-(methylamino)-

Other names:	(2-Hydroxyethyl)methylamine
	(Hydroxyethyl)methylamine
	2-(Methylamino)ethanol
	2-(N-Methylamino)ethanol
	2-(N-Monomethylamino)ethanol
	2-Hydroxy-N-methylethylamine
	2-Hydroxyethyl-N-methylamine
	2-Methylamino-1-ethanol
	Amietol M 11
	Methyl(2-hydroxyethyl)amine
	Methyl(hydroxyethyl)amine
	Methyl(«beta»-hydroxyethyl)amine
	Methyl(Â«betaÂ»-hydroxyethyl)amine
	Methylaminoethanol
	Methylethanolamine
	Methylethylolamine
	Monomethyl-aminoethanol
	Monomethylaminoethanol
	Monomethylethanolamine
	Monomethylmonoethanolamine
	N-(2-Hydroxyethyl)methylamine
	N-Methyl-2-aminoethanol
	N-Methyl-2-ethanolamine
	N-Methyl-2-hydroxyethylamine
	N-Methyl-N-(2-hydroxyethyl)amine
	N-Methyl-N-(«beta»-hydroxyethyl)amine
	N-Methyl-N-(Â«betaÂ»-hydroxyethyl)amine
	N-Methyl-N-hydroxyethylamine
	N-Methylaminoethanol
	N-Methylethanolamine
	N-Methylmonoethanolamine
	N-Monomethylaminoethanol
	N-Monomethylethanolamine
	NSC 62776
	USAF DO-50
	ethanolamine, N-methyl-
	«beta»-(Methylamino)ethanol
	Â«betaÂ»-(Methylamino)ethanol
Inchi:	InChI=1S/C3H9NO/c1-4-2-3-5/h4-5H,2-3H2,1H3
InchiKey:	OPKOKAMJFNKNAS-UHFFFAOYSA-N

Formula:C3H9NO

SMILES:CNCCO

Mol. weight [g/mol]:75.11

CAS:109-83-1

Physical Properties

Property code	Value	Unit	Source
gf	-73.05	kJ/mol	Joback Method
hf	-204.01	kJ/mol	Joback Method
hfus	12.71	kJ/mol	Joback Method
hvap	57.00 ± 0.50	kJ/mol	NIST Webbook
hvap	57.60	kJ/mol	NIST Webbook
hvap	57.50	kJ/mol	NIST Webbook
hvap	57.90	kJ/mol	NIST Webbook
hvap	57.80 ± 0.20	kJ/mol	NIST Webbook
log10ws	0.47		Crippen Method
logp	-0.802		Crippen Method
mcvol	68.980	ml/mol	McGowan Method
pc	5300.00 ± 500.00	kPa	NIST Webbook
rhoc	289.92 ± 20.28	kg/m3	NIST Webbook
tb	428.50 ± 0.50	K	NIST Webbook
tb	432.75	K	NIST Webbook
tb	431.20	K	NIST Webbook
tb	431.20	K	Vapor Liquid Equilibria for Three Binary Systems of N-Methylethanolamine, N-Methyldiethanolamine, and Ethylene Glycol at P = (40.0, 30.0, and 20.0) kPa
tc	630.00 ± 10.00	K	NIST Webbook
tf	268.65	K	NIST Webbook
vc	0.258	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	134.31	J/mol×K	410.39	Joback Method
cpg	147.36	J/mol×K	466.30	Joback Method
cpg	153.52	J/mol×K	494.25	Joback Method

cpg	140.96	J/mol×K	438.34	Joback Method
cpg	165.12	J/mol×K	550.16	Joback Method
cpg	170.58	J/mol×K	578.11	Joback Method
cpg	159.43	J/mol×K	522.21	Joback Method
cpl	194.00	J/mol×K	303.15	Molar Heat Capacity of Various Aqueous Alkanolamine Solutions from 303.15 K to 353.15 K
cpl	212.00	J/mol×K	353.15	Molar Heat Capacity of Various Aqueous Alkanolamine Solutions from 303.15 K to 353.15 K
cpl	200.00	J/mol×K	313.15	Molar Heat Capacity of Various Aqueous Alkanolamine Solutions from 303.15 K to 353.15 K
cpl	202.00	J/mol×K	318.15	Molar Heat Capacity of Various Aqueous Alkanolamine Solutions from 303.15 K to 353.15 K
cpl	203.00	J/mol×K	323.15	Molar Heat Capacity of Various Aqueous Alkanolamine Solutions from 303.15 K to 353.15 K
cpl	208.00	J/mol×K	343.15	Molar Heat Capacity of Various Aqueous Alkanolamine Solutions from 303.15 K to 353.15 K
cpl	205.00	J/mol×K	328.15	Molar Heat Capacity of Various Aqueous Alkanolamine Solutions from 303.15 K to 353.15 K
cpl	206.00	J/mol×K	333.15	Molar Heat Capacity of Various Aqueous Alkanolamine Solutions from 303.15 K to 353.15 K

cpl	207.00	J/mol×K	338.15	Molar Heat Capacity of Various Aqueous Alkanolamine Solutions from 303.15 K to 353.15 K	
cpl	210.00	J/mol×K	348.15	Molar Heat Capacity of Various Aqueous Alkanolamine Solutions from 303.15 K to 353.15 K	
cpl	199.00	J/mol×K	308.15	Molar Heat Capacity of Various Aqueous Alkanolamine Solutions from 303.15 K to 353.15 K	
dvisc	0.0024200	Pa×s	333.15	Experimental Data and Modeling for Viscosity and Refractive Index of Aqueous Mixtures with 2-(Methylamino)ethanol (MAE) and Aminoethylethanolamine (AEEA)	
dvisc	0.0131200	Pa×s	293.15	Experimental Data and Modeling for Viscosity and Refractive Index of Aqueous Mixtures with 2-(Methylamino)ethanol (MAE) and Aminoethylethanolamine (AEEA)	
dvisc	0.0102800	Pa×s	298.15	Experimental Data and Modeling for Viscosity and Refractive Index of Aqueous Mixtures with 2-(Methylamino)ethanol (MAE) and Aminoethylethanolamine (AEEA)	

dvisc	0.0084200	Pa×s	303.15	Experimental Data and Modeling for Viscosity and Refractive Index of Aqueous Mixtures with 2-(Methylamino)ethanol (MAE) and Aminoethylethanolamine (AEEA)
dvisc	0.0067800	Pa×s	308.15	Experimental Data and Modeling for Viscosity and Refractive Index of Aqueous Mixtures with 2-(Methylamino)ethanol (MAE) and Aminoethylethanolamine (AEEA)
dvisc	0.0055400	Pa×s	313.15	Experimental Data and Modeling for Viscosity and Refractive Index of Aqueous Mixtures with 2-(Methylamino)ethanol (MAE) and Aminoethylethanolamine (AEEA)
dvisc	0.0046100	Pa×s	318.15	Experimental Data and Modeling for Viscosity and Refractive Index of Aqueous Mixtures with 2-(Methylamino)ethanol (MAE) and Aminoethylethanolamine (AEEA)
dvisc	0.0038200	Pa×s	323.15	Experimental Data and Modeling for Viscosity and Refractive Index of Aqueous Mixtures with 2-(Methylamino)ethanol (MAE) and Aminoethylethanolamine (AEEA)

dvisc	0.0031300	Pa×s	328.15	Experimental Data and Modeling for Viscosity and Refractive Index of Aqueous Mixtures with 2-(Methylamino)ethanol (MAE) and Aminoethylethanolamine (AEEA)	
pvap	29.90	kPa	397.30	Vapor Pressures of Several Commercially Used Alkanolamines	
pvap	140.00	kPa	442.50	Vapor Pressures of Several Commercially Used Alkanolamines	
pvap	120.00	kPa	437.30	Vapor Pressures of Several Commercially Used Alkanolamines	
pvap	170.00	kPa	449.10	Vapor Pressures of Several Commercially Used Alkanolamines	
pvap	180.00	kPa	451.10	Vapor Pressures of Several Commercially Used Alkanolamines	
pvap	100.00	kPa	431.40	Vapor Pressures of Several Commercially Used Alkanolamines	
pvap	75.00	kPa	422.70	Vapor Pressures of Several Commercially Used Alkanolamines	
pvap	49.90	kPa	411.00	Vapor Pressures of Several Commercially Used Alkanolamines	
pvap	39.90	kPa	404.80	Vapor Pressures of Several Commercially Used Alkanolamines	
pvap	150.00	kPa	444.80	Vapor Pressures of Several Commercially Used Alkanolamines	

pvap	19.90	kPa	387.40	Vapor Pressures of Several Commercially Used Alkanolamines
pvap	9.94	kPa	371.60	Vapor Pressures of Several Commercially Used Alkanolamines
pvap	7.44	kPa	365.70	Vapor Pressures of Several Commercially Used Alkanolamines
pvap	4.94	kPa	357.50	Vapor Pressures of Several Commercially Used Alkanolamines
pvap	2.94	kPa	347.90	Vapor Pressures of Several Commercially Used Alkanolamines
pvap	1.94	kPa	341.80	Vapor Pressures of Several Commercially Used Alkanolamines
pvap	0.51	kPa	320.20	Vapor Pressures and Vaporization Enthalpies of a Series of Ethanolamines
pvap	0.42	kPa	317.20	Vapor Pressures and Vaporization Enthalpies of a Series of Ethanolamines
pvap	0.35	kPa	314.30	Vapor Pressures and Vaporization Enthalpies of a Series of Ethanolamines
pvap	0.28	kPa	311.40	Vapor Pressures and Vaporization Enthalpies of a Series of Ethanolamines
pvap	0.23	kPa	308.40	Vapor Pressures and Vaporization Enthalpies of a Series of Ethanolamines
pvap	0.14	kPa	302.30	Vapor Pressures and Vaporization Enthalpies of a Series of Ethanolamines

pvap	0.11	kPa	299.20	Vapor Pressures and Vaporization Enthalpies of a Series of Ethanolamines
pvap	0.09	kPa	296.30	Vapor Pressures and Vaporization Enthalpies of a Series of Ethanolamines
pvap	0.06	kPa	291.20	Vapor Pressures and Vaporization Enthalpies of a Series of Ethanolamines
pvap	0.06	kPa	291.10	Vapor Pressures and Vaporization Enthalpies of a Series of Ethanolamines
pvap	0.05	kPa	288.20	Vapor Pressures and Vaporization Enthalpies of a Series of Ethanolamines
pvap	0.04	kPa	285.10	Vapor Pressures and Vaporization Enthalpies of a Series of Ethanolamines
pvap	0.03	kPa	282.10	Vapor Pressures and Vaporization Enthalpies of a Series of Ethanolamines
pvap	0.02	kPa	277.90	Vapor Pressures and Vaporization Enthalpies of a Series of Ethanolamines
pvap	0.07	kPa	293.20	Vapor Pressures and Vaporization Enthalpies of a Series of Ethanolamines
pvap	0.01	kPa	274.90	Vapor Pressures and Vaporization Enthalpies of a Series of Ethanolamines
rfi	1.42780		323.15	Volumetric Properties, Viscosities, and Refractive Indices for Aqueous 2-(Methylamino)ethanol Solutions from (298.15 to 343.15) K

rfi	1.43930	293.15	Volumetric Properties, Viscosities, and Refractive Indices for Aqueous 2-(Methylamino)ethanol Solutions from (298.15 to 343.15) K
rfi	1.43750	298.15	Volumetric Properties, Viscosities, and Refractive Indices for Aqueous 2-(Methylamino)ethanol Solutions from (298.15 to 343.15) K
rfi	1.43560	303.15	Volumetric Properties, Viscosities, and Refractive Indices for Aqueous 2-(Methylamino)ethanol Solutions from (298.15 to 343.15) K
rfi	1.43390	308.15	Volumetric Properties, Viscosities, and Refractive Indices for Aqueous 2-(Methylamino)ethanol Solutions from (298.15 to 343.15) K
rfi	1.43180	313.15	Volumetric Properties, Viscosities, and Refractive Indices for Aqueous 2-(Methylamino)ethanol Solutions from (298.15 to 343.15) K
rfi	1.42980	318.15	Volumetric Properties, Viscosities, and Refractive Indices for Aqueous 2-(Methylamino)ethanol Solutions from (298.15 to 343.15) K

rhoI	932.26	kg/m3	303.15	Density and Surface Tension of Aqueous Solutions of (2-(Methylamino)-ethanol +2-Amino-2-methyl-1-propanol) and (2-(Methylamino)-ethanol + N-Methyl-diethanolamine) from (298.15 to 323.15) K
rhoI	918.02	kg/m3	323.15	Densities and Viscosities of Aqueous Ternary Mixtures of 2-(Methylamino)ethanol and 2-(Ethylamino)ethanol with Diethanolamine, Triethanolamine, N-Methyldiethanolamine, or 2-Amino-1-methyl-1-propanol from 298.15 to 323.15 K
rhoI	922.00	kg/m3	318.15	Densities and Viscosities of Aqueous Ternary Mixtures of 2-(Methylamino)ethanol and 2-(Ethylamino)ethanol with Diethanolamine, Triethanolamine, N-Methyldiethanolamine, or 2-Amino-1-methyl-1-propanol from 298.15 to 323.15 K
rhoI	925.95	kg/m3	313.15	Densities and Viscosities of Aqueous Ternary Mixtures of 2-(Methylamino)ethanol and 2-(Ethylamino)ethanol with Diethanolamine, Triethanolamine, N-Methyldiethanolamine, or 2-Amino-1-methyl-1-propanol from 298.15 to 323.15 K

rhoI	929.88	kg/m3	308.15	Densities and Viscosities of Aqueous Ternary Mixtures of 2-(Methylamino)ethanol and 2-(Ethylamino)ethanol with Diethanolamine, Triethanolamine, N-Methyldiethanolamine, or 2-Amino-1-methyl-1-propanol from 298.15 to 323.15 K
rhoI	933.79	kg/m3	303.15	Densities and Viscosities of Aqueous Ternary Mixtures of 2-(Methylamino)ethanol and 2-(Ethylamino)ethanol with Diethanolamine, Triethanolamine, N-Methyldiethanolamine, or 2-Amino-1-methyl-1-propanol from 298.15 to 323.15 K
rhoI	937.68	kg/m3	298.15	Densities and Viscosities of Aqueous Ternary Mixtures of 2-(Methylamino)ethanol and 2-(Ethylamino)ethanol with Diethanolamine, Triethanolamine, N-Methyldiethanolamine, or 2-Amino-1-methyl-1-propanol from 298.15 to 323.15 K
rhoI	892.10	kg/m3	353.15	Density, Viscosity, and Excess Properties of Binary Mixtures of 2-(Methylamino)ethanol with 2-Methoxyethanol, 2-Ethoxyethanol, and 2-Butoxyethanol from 293.15 to 353.15 K

rho	896.20	kg/m3	348.15	Density, Viscosity, and Excess Properties of Binary Mixtures of 2-(Methylamino)ethanol with 2-Methoxyethanol, 2-Ethoxyethanol, and 2-Butoxyethanol from 293.15 to 353.15 K
rho	900.30	kg/m3	343.15	Density, Viscosity, and Excess Properties of Binary Mixtures of 2-(Methylamino)ethanol with 2-Methoxyethanol, 2-Ethoxyethanol, and 2-Butoxyethanol from 293.15 to 353.15 K
rho	904.40	kg/m3	338.15	Density, Viscosity, and Excess Properties of Binary Mixtures of 2-(Methylamino)ethanol with 2-Methoxyethanol, 2-Ethoxyethanol, and 2-Butoxyethanol from 293.15 to 353.15 K
rho	908.50	kg/m3	333.15	Density, Viscosity, and Excess Properties of Binary Mixtures of 2-(Methylamino)ethanol with 2-Methoxyethanol, 2-Ethoxyethanol, and 2-Butoxyethanol from 293.15 to 353.15 K

rho	916.50	kg/m3	323.15	Density, Viscosity, and Excess Properties of Binary Mixtures of 2-(Methylamino)ethanol with 2-Methoxyethanol, 2-Ethoxyethanol, and 2-Butoxyethanol from 293.15 to 353.15 K
rho	920.50	kg/m3	318.15	Density, Viscosity, and Excess Properties of Binary Mixtures of 2-(Methylamino)ethanol with 2-Methoxyethanol, 2-Ethoxyethanol, and 2-Butoxyethanol from 293.15 to 353.15 K
rho	924.50	kg/m3	313.15	Density, Viscosity, and Excess Properties of Binary Mixtures of 2-(Methylamino)ethanol with 2-Methoxyethanol, 2-Ethoxyethanol, and 2-Butoxyethanol from 293.15 to 353.15 K
rho	928.40	kg/m3	308.15	Density, Viscosity, and Excess Properties of Binary Mixtures of 2-(Methylamino)ethanol with 2-Methoxyethanol, 2-Ethoxyethanol, and 2-Butoxyethanol from 293.15 to 353.15 K

rho	932.30	kg/m ³	303.15	Density, Viscosity, and Excess Properties of Binary Mixtures of 2-(Methylamino)ethanol with 2-Methoxyethanol, 2-Ethoxyethanol, and 2-Butoxyethanol from 293.15 to 353.15 K
rho	936.20	kg/m ³	298.15	Density, Viscosity, and Excess Properties of Binary Mixtures of 2-(Methylamino)ethanol with 2-Methoxyethanol, 2-Ethoxyethanol, and 2-Butoxyethanol from 293.15 to 353.15 K
rho	940.10	kg/m ³	293.15	Density, Viscosity, and Excess Properties of Binary Mixtures of 2-(Methylamino)ethanol with 2-Methoxyethanol, 2-Ethoxyethanol, and 2-Butoxyethanol from 293.15 to 353.15 K
rho	936.18	kg/m ³	298.15	Density and Surface Tension of Aqueous Solutions of (2-(Methylamino)-ethanol +2-Amino-2-methyl-1-propanol) and (2-(Methylamino)-ethanol + N-Methyl-diethanolamine) from (298.15 to 323.15) K

rhoI	918.25	kg/m3	323.15	Density, Speed of Sound, Viscosity, and Excess Properties of N-Ethyl-2-pyrrolidone + 2-(Methylamino)ethanol [or 2-(Ethylamino)ethanol] from T = (293.15 to 323.15) K
rhoI	926.18	kg/m3	313.15	Density, Speed of Sound, Viscosity, and Excess Properties of N-Ethyl-2-pyrrolidone + 2-(Methylamino)ethanol [or 2-(Ethylamino)ethanol] from T = (293.15 to 323.15) K
rhoI	934.02	kg/m3	303.15	Density, Speed of Sound, Viscosity, and Excess Properties of N-Ethyl-2-pyrrolidone + 2-(Methylamino)ethanol [or 2-(Ethylamino)ethanol] from T = (293.15 to 323.15) K
rhoI	941.79	kg/m3	293.15	Density, Speed of Sound, Viscosity, and Excess Properties of N-Ethyl-2-pyrrolidone + 2-(Methylamino)ethanol [or 2-(Ethylamino)ethanol] from T = (293.15 to 323.15) K
rhoI	916.48	kg/m3	323.15	Density and Surface Tension of Aqueous Solutions of (2-(Methylamino)-ethanol +2-Amino-2-methyl-1-propanol) and (2-(Methylamino)-ethanol + N-Methyl-diethanolamine) from (298.15 to 323.15) K

rho1	924.42	kg/m3	313.15	Density and Surface Tension of Aqueous Solutions of (2-(Methylamino)-ethanol +2-Amino-2-methyl-1-propanol) and (2-(Methylamino)-ethanol + N-Methyl-diethanolamine) from (298.15 to 323.15) K
rho1	912.50	kg/m3	328.15	Density, Viscosity, and Excess Properties of Binary Mixtures of 2-(Methylamino)ethanol with 2-Methoxyethanol, 2-Ethoxyethanol, and 2-Butoxyethanol from 293.15 to 353.15 K

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	389.50 ± 1.50	K	0.70	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.56909e+01
Coeff. B	-3.98645e+03
Coeff. C	-7.11700e+01
Temperature range (K), min.	329.98
Temperature range (K), max.	455.24

Sources

The Yaws Handbook of Vapor Pressure: Density, Speed of Sound, Viscosity, and Excess Properties of Monomeric Liquids, Viscosities, and Refractive Indices of Aqueous Binary Mixtures of Methanol, Ethanol, 2-(Methylamino)ethanol, and 2-(Methylamino)ethanol with Diethanolamine, Triethanolamine, N-Methyl-2-pyrrolidone, or 2-Amino-1-methyl-1-propanol from 298.15 to 423.15 K (1995) and 2-(Methylamino)-ethanol + (N-Methyl)-diethanolamine) from (293.15 to 323.15) K. Data and Modeling for Viscosity and Refractive Index of Aqueous Binary Mixtures of Methanol, Ethanol, and 2-(Methylamino)ethanol with Diethanolamine and Triethanolamine and Aqueous Ternary Mixtures of These Amines with Methanol. Webbook: N-Methyl-diethanolamine from (293.15 to 323.15) K. Commercially Used Alkanolamines: Molar excess enthalpy (HEM) for various {alkanolamine (1) + water (2)} systems in the temperature range 298.15 to 323.15 K. Density, Viscosity, and N₂O solubility of Aqueous 2- (methylamino)ethanol. Density, Viscosity, and Excess Properties of Binary Mixtures of 2-(Methylamino)ethanol with 2-Methoxyethanol, 2-Ethoxyethanol, and 2-Butoxyethanol from 293.15 to 323.15 K. Vaporization Enthalpies of a Series of Ethanolamines:

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Legend

cpq: 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

hfus: Enthalpy of fusion at standard conditions

h_{vap}: 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

p_{vap}: Vapor pressure

rfi: Refractive Index

rhoc:	Critical density
rhoL:	Liquid Density
tb:	Normal Boiling Point Temperature
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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