

# Morpholine, 4-acetyl-

<b>Other names:</b>	4-acetylmorpholine N-1-Acetyl morpholine N-Acetylmorfolin N-Acetylmorpholine
<b>Inchi:</b>	InChI=1S/C6H11NO2/c1-6(8)7-2-4-9-5-3-7/h2-5H2,1H3
<b>InchiKey:</b>	KYWXRBNOYGGPIZ-UHFFFAOYSA-N
<b>Formula:</b>	C6H11NO2
<b>SMILES:</b>	CC(=O)N1CCOCC1
<b>Mol. weight [g/mol]:</b>	129.16
<b>CAS:</b>	1696-20-4

## Physical Properties

Property code	Value	Unit	Source
log10ws	0.34		Crippen Method
logp	-0.135		Crippen Method
mvol	101.960	ml/mol	McGowan Method
rinpol	1133.00		NIST Webbook
rinpol	1133.00		NIST Webbook

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
dvisc	0.0038480	Paxs	323.15	Viscosities and Densities of Binary Mixtures of (N-Acetylmorpholine + Alkanols) from (293.15 to 323.15) K

dvisc	0.0071000	Paxs	303.15	Densities, Viscosities and Derived Functions of Binary Mixtures: (Triethylene Glycol Dimethyl Ether + Water) and (N-acetylmorpholine+ Water) from 298.15 to 343.15 K
dvisc	0.0051800	Paxs	313.15	Densities, Viscosities and Derived Functions of Binary Mixtures: (Triethylene Glycol Dimethyl Ether + Water) and (N-acetylmorpholine+ Water) from 298.15 to 343.15 K
dvisc	0.0039600	Paxs	323.15	Densities, Viscosities and Derived Functions of Binary Mixtures: (Triethylene Glycol Dimethyl Ether + Water) and (N-acetylmorpholine+ Water) from 298.15 to 343.15 K
dvisc	0.0031200	Paxs	333.15	Densities, Viscosities and Derived Functions of Binary Mixtures: (Triethylene Glycol Dimethyl Ether + Water) and (N-acetylmorpholine+ Water) from 298.15 to 343.15 K
dvisc	0.0025500	Paxs	343.15	Densities, Viscosities and Derived Functions of Binary Mixtures: (Triethylene Glycol Dimethyl Ether + Water) and (N-acetylmorpholine+ Water) from 298.15 to 343.15 K

dvisc	0.0085340	Paxs	293.15	Viscosities and Densities of Binary Mixtures of (N-Acetylmorpholine + Alkanols) from (293.15 to 323.15) K
dvisc	0.0070520	Paxs	303.15	Viscosities and Densities of Binary Mixtures of (N-Acetylmorpholine + Alkanols) from (293.15 to 323.15) K
dvisc	0.0051220	Paxs	313.15	Viscosities and Densities of Binary Mixtures of (N-Acetylmorpholine + Alkanols) from (293.15 to 323.15) K
dvisc	0.0084800	Paxs	298.15	Densities, Viscosities and Derived Functions of Binary Mixtures: (Triethylene Glycol Dimethyl Ether + Water) and (N-acetylmorpholine+ Water) from 298.15 to 343.15 K
rhol	1113.80	kg/m3	293.15	Densities and volumetric properties of (N-acetylmorpholine + aromatic hydrocarbon) binary mixtures from T = (293.15 to 343.15) K
rhol	1105.90	kg/m3	303.15	Densities and volumetric properties of (N-acetylmorpholine + aromatic hydrocarbon) binary mixtures from T = (293.15 to 343.15) K

rhoI	1097.30	kg/m3	313.15	Densities and volumetric properties of (N-acetylmorpholine + aromatic hydrocarbon) binary mixtures from T = (293.15 to 343.15) K
rhoI	1088.70	kg/m3	323.15	Densities and volumetric properties of (N-acetylmorpholine + aromatic hydrocarbon) binary mixtures from T = (293.15 to 343.15) K
rhoI	1080.10	kg/m3	333.15	Densities and volumetric properties of (N-acetylmorpholine + aromatic hydrocarbon) binary mixtures from T = (293.15 to 343.15) K
rhoI	1071.50	kg/m3	343.15	Densities and volumetric properties of (N-acetylmorpholine + aromatic hydrocarbon) binary mixtures from T = (293.15 to 343.15) K

## Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	425.20	K	6.70	NIST Webbook
tbrp	391.20	K	1.60	NIST Webbook

## Sources

Crippen Method:

[https://www.chemeo.com/doc/models/crippen\\_log10ws](https://www.chemeo.com/doc/models/crippen_log10ws)

Densities and volumetric properties of (N-acetylmorpholine + aromatic hydrocarbon) binary mixtures from T = (293.15 to 343.15) K: <https://www.doi.org/10.1016/j.jct.2008.07.009>  
 Functions of Binary Mixtures: <https://www.doi.org/10.1021/je050021e>  
 Freezing Point Depression of Binary + Water and (N-Acetylmorpholine + Water) from 298.15 to 343.15 K: <https://www.doi.org/10.1021/je8003194>

<https://www.doi.org/10.1016/j.jct.2008.07.009>

<https://www.doi.org/10.1021/je050021e>

<https://www.doi.org/10.1021/je8003194>

**McGowan Method:** <http://link.springer.com/article/10.1007/BF02311772>  
**NIST Webbook:** <http://webbook.nist.gov/cgi/cbook.cgi?ID=C1696204&Units=SI>  
**Crippen Method:** <http://pubs.acs.org/doi/abs/10.1021/ci990307I>

## Legend

**dvisc:** Dynamic viscosity  
**log10ws:** Log10 of Water solubility in mol/l  
**logp:** Octanol/Water partition coefficient  
**mcvol:** McGowan's characteristic volume  
**rhol:** Liquid Density  
**rinpol:** Non-polar retention indices  
**tbrp:** Boiling point at reduced pressure

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