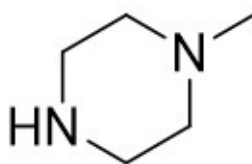


# N-Methylpiperazine (NMP)

1-methylpiperazine



N-Methylpiperazine (NMP) is another cyclic ethylene amine which appears as a clear, hygroscopic liquid.

NMP is primarily used as raw material for pharmaceuticals.

CAS number  
109-01-3

EINECS/ELINCS No.  
203-639-5

Molecular weight  
100.19

Molecular formula  
C<sub>5</sub>H<sub>12</sub>N<sub>2</sub>

## Specifications

Appearance (MOA 200)	Clear liquid
Assay (MOA 506)	≥ 99.0 wt%
Organic impurities (MOA 506)	≤ 0.5 wt%
Color (MOA 201)	≤ 20 Hazen
Water (MOA 305)	≤ 0.2 wt%

## Characteristics

Form	Viscous liquid
Color	Colorless
Odor	Ammonical
Flammability, liquids	Flammable liquid and vapor
Water solubility	Soluble
Solubility in other solvents	Acetone; Ethanol
pH, 5% solution	11-12
Melting point/freezing point, 1013 hPa	-5.57 °C
Boiling point/boiling range, 1013 hPa	133.66 °C
Flash point, 1013 hPa, ISO 3679	31.5 °C
Ignition temperature	> 100 °C
Vapor pressure, 20°C	6.78 hPa
Relative vapor density, air = 1.0	3.4
Density, 20°C	900 kg/m <sup>3</sup>
Relative density, 20°C	0.902
Partition coefficient, N-octanol/water, 25°C, log Pow	-0.57
Dynamic viscosity, 20°C	2.27 mPa.s

### Notes:

Methods of Analysis (MOA) are available upon request. In case of dispute, the listed Method of Analysis will be used as reference methods.

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The Nouryon logo features a stylized orange 'N' followed by the word 'ouryon' in a lowercase, orange, sans-serif font.