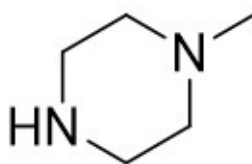


# N-Methylpiperazine (NMP)

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

## Specifications

Appearance (MOA 200)	Clear liquid
Assay (MOA 564)	≥ 99.0 wt%
Organic impurities (MOA 506)	≤ 0.5 wt%
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.

All information concerning this product and/or suggestions for handling and use contained herein are offered in good faith and are believed to be reliable. Nouryon, however, makes no warranty as to accuracy and/or sufficiency of such information and/or suggestions, as to the product's merchantability or fitness for any particular purpose, or that any suggested use will not infringe any patent. Nouryon does not accept any liability whatsoever arising out of the use of or reliance on this information, or out of the use or the performance of the product. Nothing contained herein shall be construed as granting or extending any license under any patent. Customer must determine for himself, by preliminary tests or otherwise, the suitability of this product for his purposes. The information contained herein supersedes all previously issued information on the subject matter covered. The customer may forward, distribute, and/or photocopy this document only if unaltered and complete, including all of its headers and footers, and should refrain from any unauthorized use. Don't copy this document to a website.

## Contact Us

GLOBAL  
[infoethy@nouryon.com](mailto:infoethy@nouryon.com)

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