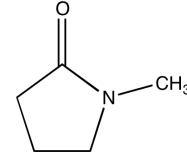


**Identification**

$C_5H_9NO$   
 M = 99,13 g/mol  
 CAS [872-50-4]  
 EC number: 212-828-1  
 Taric code: 2933 79 00


**Synonyms**

N-Methylpyrrolidone, N-Methyl-2-pyrrolidinone, NMP

**Specifications**

assay (G.C.)..... min. 99,8 %  
 refractive index n<sub>20</sub>/D..... 1,468 - 1,471  
 water (K.F.)..... max. 0,05 %

Packed under inert gas

Suitable for residual solvents  
 analysis according to guideline  
 CPMP/ICH/283/95, Ph Eur  
 and USP.  
 Class 1 according to ICH  
 less than 0,5 ppm.  
 benzene (G.C.)..... absence of peak  
 Class 2 and class 3 solvents  
 dichloromethane..... 0,6 mg/l  
 tert-Butyl methyl ether..... 1 mg/l  
 acetone ..... 1 mg/l  
 methanol ..... 1 mg/l  
 tetrahydrofuran..... 0,7 mg/l  
 n-Hexane..... 0,3 mg/l  
 ethyl acetate..... 1 mg/l  
 ethanol..... 1 mg/l  
 cyclohexane..... 1 mg/l  
 acetonitrile..... 0,4 mg/l  
 2-propanol..... 1 mg/l  
 isopropyl acetate..... 1 mg/l  
 n-Propanol..... 1 mg/l  
 n-Heptane..... 1 mg/l  
 methylcyclohexane..... 1 mg/l  
 1,4-Dioxane..... 0,4 mg/l  
 toluene..... 0,9 mg/l  
 pyridine..... 1 mg/l  
 n-Butanol..... 1 mg/l  
 butyl acetate..... 1 mg/l  
 ethylbenzene..... 1 mg/l  
 p-Xylene..... 1 mg/l  
 m-Xylene..... 1 mg/l  
 o-Xylene..... 1 mg/l

**Physical data**

- Density: 1,03 g/cm<sup>3</sup>
- Solub. in water: (20 °C): miscible
- Melting point: -24 °C
- Boiling point: 202 °C
- Flash point: 91 °C
- Ignition temperature: 245 °C
- Vapour pressure: (20 °C) 0,32 hPa
- Refraction index: (n<sub>20</sub> °C/D) 1,4684
- Viscosity: (20 °C) 1,67 mPas
- Dipolar moment: (20 °C) 4,1 Debye
- Dielectric const.: (25 °C) 33
- Expl. limit (upper): 9,5 Vol%
- Expl. limit (lower): 1,3 Vol%
- pH(100 g/l H<sub>2</sub>O, 20 °C) 8,5 - 10,0

**Safety - GHS**

**Signal Word:** Danger

**Hazard Statements:**

H360D: May damage the unborn child.

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H335: May cause respiratory irritation.

**Precautionary Statements:**

P261: Avoid breathing dust / fume / gas / mist / vapours / spray.

P280: Wear protective gloves / protective clothing / eye protection / face protection.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P321: Specific treatment (see on this label).

P405: Store locked up.

P501a: Dispose of contents / container in accordance with local / regional / national / international regulations.

**Toxicological data**

• LD 50 (oral, rat): 3598 mg/kg

• MAK: 19 ml/m<sup>3</sup>, 80 mg/m<sup>3</sup>

• WGK: 1

• Poison class CH (Swiss): 5

**Transport/storage**

• Store between 15°C and 25°C