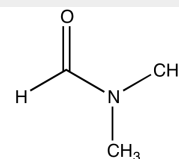


# N,N-Dimethylformamide, GC head space grade

## Identification

C<sub>3</sub>H<sub>7</sub>NO  
M = 73,10 g/mol  
CAS [68-12-2]  
EC number: 200-679-5  
Taric code: 2924 19 00



## Synonyms

DMF, Formic acid dimethylamide

## Applications

solvents, synthesis of organic products.

## Specifications

assay (G.C.)..... min. 99,9 %  
refractive index n<sub>20</sub>/D..... 1,430 - 1,440  
water (K.F.)..... max. 0,03 %

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: 0,94 g/cm<sup>3</sup>
- Solub. in water: (20 °C): miscible
- Melting point: -61 °C
- Boiling point: 153 °C
- Flash point: 58 °C
- Ignition temperature: 410 °C
- Vapour pressure: (20 °C) 3,77 hPa
- Refraction index: (n 20 °C/D) 1,4305
- Viscosity: (20 °C) 0,8 mPas
- Dipolar moment: (20 °C) 3,8 Debye
- Dielectric const.: (20 °C) 36,7
- Saturation conc.: (20 °C) 12 g/m<sup>3</sup>
- Expl. limit (upper): 16 Vol%
- Expl. limit (lower): 2,2 Vol%
- pH(200 g/l H<sub>2</sub>O, 20 °C) 7
- Hygroscopic

**Safety - GHS****Signal Word:** Danger**Hazard Statements:**

H360D: May damage the unborn child.

H226: Flammable liquid and vapour.

H312: Harmful in contact with skin.

H332: Harmful if inhaled.

H319: Causes serious eye irritation.

**Precautionary Statements:**

P210: Keep away from heat / sparks / open flames / hot surfaces. - No smoking.

P241: Use explosion-proof electrical / ventilating / lighting / equipment.

P303+P361+P353: IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.

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

P405: Store locked up.

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

**Toxicological data**

- LD 50 (oral, rat): 2800 mg/kg
- MAK: 10 ml/m<sup>3</sup>, 30 mg/m<sup>3</sup>
- WGK: 1
- Poison class CH (Swiss): 3

**Transport/storage**

- ADR: 3 F1 III • UN 2265 • N,N-DIMETHYL-FORMAMIDE
- IMDG: 3 III • UN 2265 • N,N-DIMETHYLFORMAMIDE
- IATA/ICAO: 3 III • UN 2265 • N,N-DIMETHYLFORMAMIDE
- PAX: 355
- CAO: 366
- Store between 15°C and 25°C