

Analysis of formaldehyde in air with passive dosimeter

Principle

Formaldehyde is concentrated by passive diffusion on a dosimeter with a tape impregnated with 2,4-dinitrophenylhydrazine (DNPH). The formaldehyde concentration is determined by HPLC.

Advantages

Small, lightweight and portable
 Selective determination of formaldehyde
 No pump is needed. The dosimeter can be sent by post in an envelope.

Reference

Swedish Institute of Occupational Health in Umeå, Sweden.
 ISO/DIS 16000-4:1999

| | |
|---|--|
| Range: | 0.3 - 30 µg/sample |
| Airflow: | 28.6 ml/min |
| Detection limit: | 4 hour => 0.004 mg/m ³ 8 hour => 0.002 mg/m ³ |
| Formaldehyde 1 ppm = 1.2 mg/m ³ at 20 °C | |

Passive sampler for formaldehyde
 Weight: 11 g Size: 9 x 3 x 0.9 cm

Air quality standard for formaldehyde (ppm)

| Country | TWA* | Ceiling value |
|---------|------|---------------|
| Austria | 0.5 | 0.5 |
| Finland | 0.3 | 1 |
| France | 0.5 | 1 |
| Germany | 0.5 | - |
| Norway | 0.5 | - |
| Sweden | 0.5 | 1 |

* Time Weighted Average for a working day

