

Technical Data Sheet: TDS 9A

DIF700UMEX-F – UMEX FORMALDEHYDE BADGES

These UMEX Badges are designed for passively monitoring Formaldehyde in ambient air.



Description: Plastic badge containing a tape treated with 2,4-dinitrophenylhydrazine for passive sampling in the 5 ppb to 5 ppm range.

Each sampler incorporates a “blank/correction” section of tape in addition to the sample section of tape. The samplers come in their own pouch that can be reused when sending back to the laboratory for analysis. They are single use only.

Badges are analysed by HPLC with UV detection (UKAS accredited methods).

Suitable for carrying out external and indoor ambient air sampling, as well as workplace and personal monitoring for formaldehyde.

Dimensions: 3.4 x 1.1 x 0.35 inches (8.6 x 2.8 x 0.89 cm).

Recommended Exposure Periods: Can be used for 15 min sampling in ppm range. Personal monitoring up to 12 hrs. Indoor monitoring from 24 hrs – 7 days.

Sampling Rate: 28.6 mL/min (standard deviation of 7.6% at a wind velocity of 5-100 cm/sec for 15 mins-24 hrs. 20.4 mL/min window velocities < 5 cm/sec for 1-7 days.

Storage: Before use ≤ 39.2 F (4 C). After use ≤ 39.2 F (4 C) and analyse within 3 weeks.

Limit of Detection: 15 min 200 ppb (0.24 mg/m³). 8 hr 5 ppb (0.006 mg/m³). 24 hr 2 ppb (0.002 mg/m³). 7 days 0.2 ppb (0.0002 mg/m³).

Analytical Expanded Measurement Uncertainty: Available upon request.

Predicted Working Range: 0.06 – 3.0 ppm

Relevant Standards/Methods: NIOSH 2018: MDHS 78: TO-11A.

Special Factors: Highly specific for Formaldehyde. Large amounts of carbonyl compounds may reduce the uptake of formaldehyde. Use in Ozone levels < 0.5 ppm.