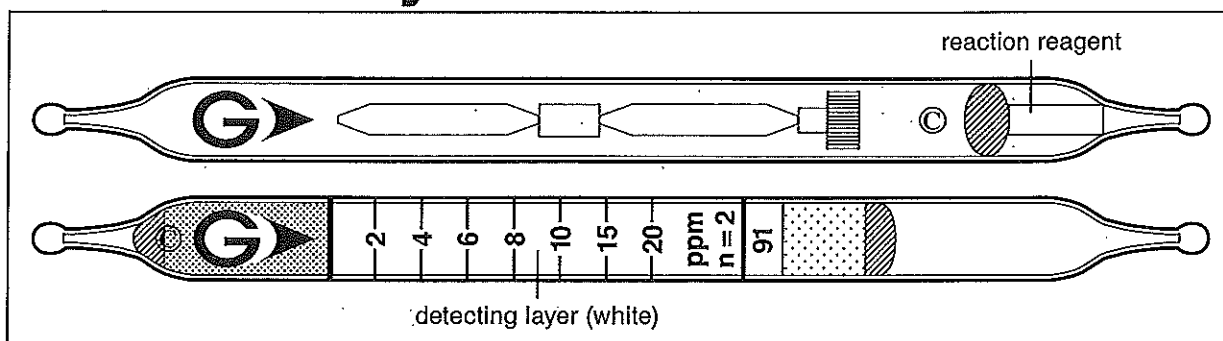


Formaldehyde HCHO

No.91



Performance

When used, these tubes are to be connected. See page 2-3.

| | | | |
|------------------------|-------------|--------------|---------------|
| Measuring range | 2 to 20 ppm | 20 to 50 ppm | 50 to 100 ppm |
| Number of pump strokes | 2 (200 ml) | 1 (100 ml) | 1/2 (50 ml) |
| Correction factor | 1 | 2.5 | 5 |
| Sampling time | 1.5 min | 45 sec | 30 sec |

Detecting limit : 0.5 ppm (2 pump strokes)

Colour change : White → Brown

Corrections for temperature & humidity : Unnecessary

Relative standard deviation : 15 % (for 2 to 6 ppm), 10 % (for 6 to 20 ppm)

Shelf life : 3 years

Reaction principle

Pretreatment tube : Gas mixing

Detector tube : $\text{HCHO} + \text{C}_6\text{H}_4(\text{CH}_3)_2 + \text{H}_2\text{S}_2\text{O}_7 \rightarrow \text{Condensation polymer}$

Possible coexisting substances and their interferences (NOTE : Page 2-5)

| Substance | Concentration | Interference | Changes colour by itself to |
|-------------------------|-----------------|--------------|-----------------------------|
| Aldehydes | $\geq 1/2$ | + | Brown |
| Styrene | ≥ 500 ppm | + | Yellow |
| Esters, Ethers, Ketones | ≥ 1000 ppm | + | No |

Calibration gas generation

Diffusion tube method

TLV-STEL : C 0.3 ppm

Explosive range : 7.0 to 73 %