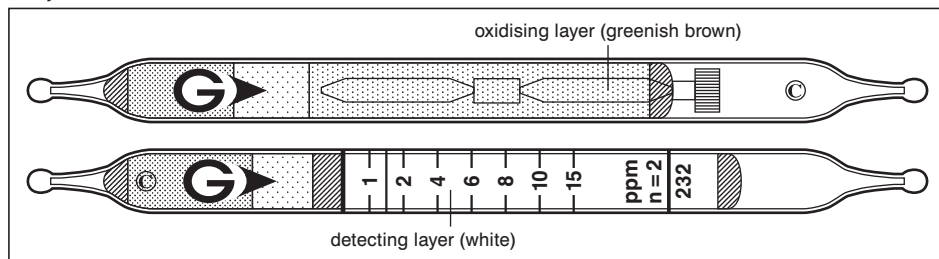


1,2-Dichloroethane $\text{ClCH}_2\text{CH}_2\text{Cl}$ No.232



Performance

When used, these tubes are to be connected.

| | | |
|------------------------|-------------|--------------|
| Measuring range | 1 to 15 ppm | 15 to 39 ppm |
| Number of pump strokes | 2 (200 ml) | 1 (100 ml) |
| Correction factor | 1 | 2.6 |
| Sampling time | 4 min | 2 min |

Detecting limit : 0.25 ppm (2 pump strokes)

Colour change : White → Pale purple

Corrections for temperature & humidity : Temperature correction is necessary.

Relative standard deviation : 15 % (for 1 to 4 ppm), 10 % (for 4 to 15 ppm)

Shelf life : 1 year (in the refrigerator)

Reaction principle



$\text{Cl}_2 + 3,3'$ -Dimethylnaphthidine + Reaction product

Possible coexisting substances and their interferences

| Substance | Concentration | Interference | Changes colour by itself to |
|----------------------|----------------|--------------|--------------------------------|
| Carbon dioxide | | No | No |
| Chlorine | ≥ 0.5 ppm | + | Pale purple (≥ 0.15 ppm) |
| Chloropicrin | ≥ 0.3 ppm | + | Pale purple (≥ 2 ppm) |
| Chloroform | ≥ 2 ppm | + | Pale purple (≥ 2 ppm) |
| Carbon tetrachloride | ≥ 5 ppm | + | Pale purple (≥ 15 ppm) |
| 1,2-Dichloroethylene | ≥ 1 ppm | + | Pale purple (≥ 0.3 ppm) |
| Methyl bromide | ≥ 0.1 ppm | + | Pale purple (≥ 0.1 ppm) |

Calibration gas generation

Diffusion tube method