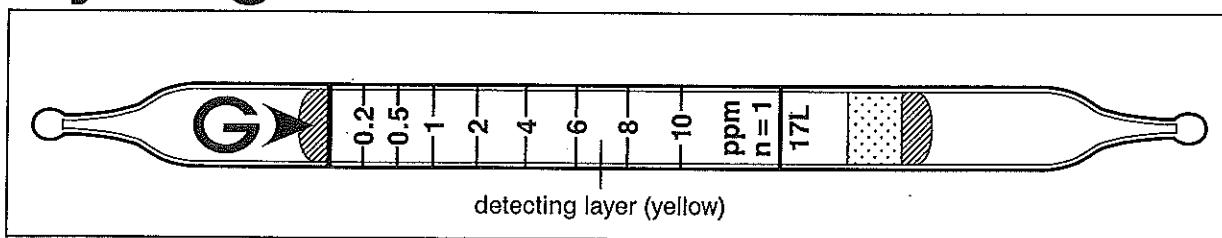


Hydrogen Fluoride HF

No.17L



Performance

| | | | |
|------------------------|-----------------|---------------|--------------|
| Measuring range | 0.09 to 0.2 ppm | 0.2 to 10 ppm | 10 to 72 ppm |
| Number of pump strokes | 5 (500 ml) | 3 (300 ml) | 1 (100 ml) |
| Correction factor | 0.45 | 1 | 7.2 |
| Sampling time | 5 min | 3 min | 1 min |

Detecting limit : 0.05 ppm (5 pump strokes)

Colour change : Yellow → Brown

Corrections for temperature & humidity : humidity correction is necessary.

Relative standard deviation : 10 % (for 0.2 to 2 ppm), 5 % (for 2 to 10 ppm)

Shelf life : 2 years

Reaction principle

Hydrogen fluoride reacts with indicator to produce reddish brown stain.

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

| Substance | Concentration | Interference | Changes colour by itself to |
|-------------------|---------------|--------------|-----------------------------|
| Nitric acid | $\geq 1/5$ | + | Reddish purple |
| Hydrogen chloride | $\geq 1/2$ | + | Reddish purple |
| Nitrogen dioxide | | No | No |

Calibration gas generation

Permeation tube method