

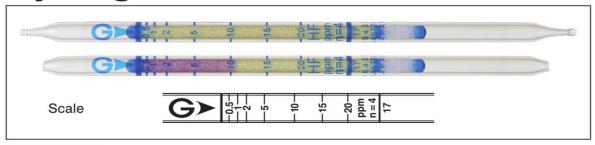


# Hydrogen Fluoride HF

Part No.: 17

# Hydrogen Fluoride HF

No.17



### Performance

| Measuring range        | 0.25 to 0.5 ppm | 0.5 to 20 ppm | 20 to 100 ppm |  |
|------------------------|-----------------|---------------|---------------|--|
| Number of pump strokes | 7(700 mL)       | 4 (400 mL)    | 1 (100 mL)    |  |
| Correction factor      | 1/2             | 1             | 5             |  |
| Sampling time          | 6 min           | 3 min         | 45 sec        |  |

Detecting limit: 0.1 ppm (7 pump strokes)

Colour change : Yellow → Brown

\*May produce "Deep Pink" colour at

higher concentration.

Operating conditions: Temperature 0 to 40 °C (32 to 104 °F) correction not used

Relative humidity 30 to 80 % correction used

Relative standard deviation: 10 % (for 0.5 to 5 ppm), 5 % (for 5 to 20 ppm)

Tube quantity and number of tests per box: 10 tubes for 10 tests

Shelf life: 36 months

#### Reaction principle

HF + Indicator → Reaction product

## Possible coexisting substances and their interferences

| Substance         | Concentration | Interference | Changes colour by itself to |
|-------------------|---------------|--------------|-----------------------------|
| Chlorine          | ≥ 1/10        | +            | )                           |
| Hydrogen chloride | ≥ 1/5         | +            | Drown                       |
| Nitric acid       | ≥ 1/5         | +            | } Brown                     |
| Nitrogen dioxide  | ≥ 1/10        | +            | J                           |

#### Other substance measurable with this detector tube

| Substance | Correction Factor | Pump<br>strokes | Temperature   | Absolute<br>Humidity | Colour Change               |
|-----------|-------------------|-----------------|---------------|----------------------|-----------------------------|
| Fluorine  | 2.5               | 1               | 20 °C (68 °F) | 9mg/L                | Produces<br>brown stain     |
| Fluorine  | 1.0               | 1               | 20 °C (68 °F) | 3mg/L                | Produces a brown ring stain |

#### Calibration gas generation

Permeation tube method