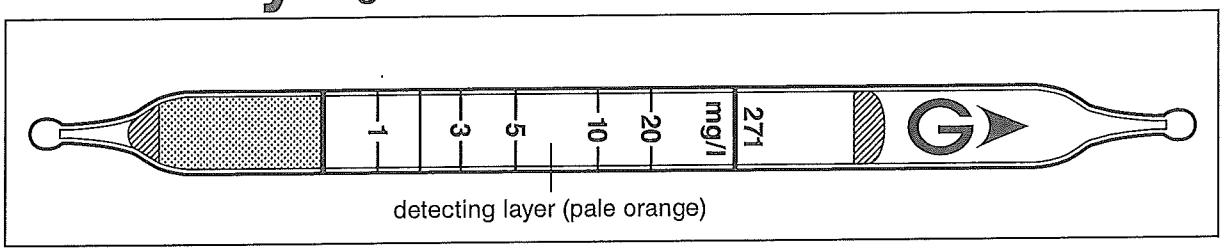
# Mercury Hg

No.271




## Performance

| | |
|---|---|
| Measuring range : | 1 – 20 mg/l |
| Sampling time : | 5 minutes |
| Detecting limit : | 0.5 mg/l |
| Colour change : | Pale orange → Bluish purple |
| Corrections for water temperature : | Unnecessary (0 – 35°C) |
| pH value : | pH 4.5 – pH 8.0 |
| Relative standard deviation : | 15 % (for 1 to 5 mg/l) 10 % (for 5 to 20 mg/l) |
| Shelf life : | 3 years |

## Reaction principle

Hg + PAN (indicator) → Complex compound

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

| Substance | Concentration | Interference | Changes colour by itself to |
|---|---|---|---|
| $Fe^{2+}$ | ≧ 0.5 mg/l | – | Reddish purple (≧ 0.5 mg/l) |
| $Fe^{3+}$ | ≧ 1 mg/l | – | No (≦ 100 mg/l) |
| Cu | ≧ 0.5 mg/l | + | Reddish purple (≧ 0.5 mg/l) |
| Zn | ≧ 0.5 mg/l | + | Purple (≧ 0.2 mg/l) |
| Mn | ≧ 1 mg/l | + | Bluish purple (≧ 1 mg/l) |
| Al | ≧ 0.5 mg/l | + | No (≦ 100 mg/l) |
| Ni | ≧ 0.3 mg/l | + | Purple (≧ 0.3 mg/l) |
| Co | ≧ 0.2 mg/l | + | Purple (≧ 0.2 mg/l) |

## Calibration method

Mercury standard solution