# Tetrahydrothiophene $C_4H_8S$ — No.76M



Scale
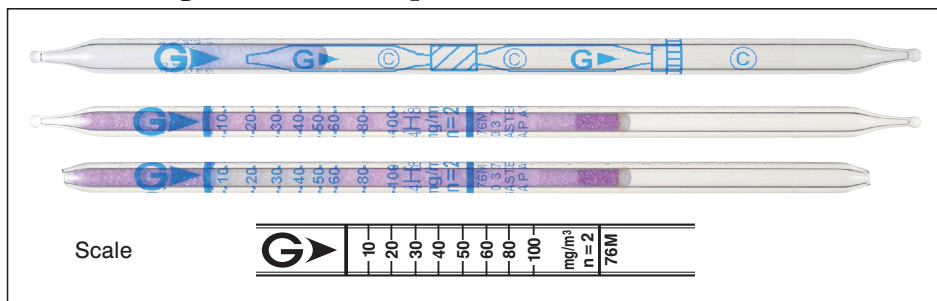
## Performance

| Measuring range | 10 to 100 mg/m$^3$ |
|---|---|
| Number of pump strokes | 2（200 mL） |
| Correction factor | 1 |
| Sampling time | 2 min |

Detecting limit : 2 mg/m$^3$（2 pump strokes）

Colour change : Pink → Pale yellow

Operating conditions : Temperature 0 to 40 °C (32 to 104 °F) correction used
Relative humidity 0 to 90 % correction not used

Relative standard deviation : 10 %（for 10 to 30 mg/m$^3$）, 5 %（for 30 to 100 mg/m$^3$）

Tube quantity and number of tests per box : 10 tubes for 5 tests

Shelf life : 24 months

## Reaction principle

$C_4H_8S + MnO_4 →$ Reaction product
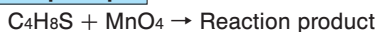
## Possible coexisting substances and their interferences

| Substance | Concentration | Interference | Changes colour by itself to |
|---|---|---|---|
| 1-Butene | $\leqq$ 1000 ppm | No | |
| tert-Butyl mercaptan | $\leqq$ 10 mg/m$^3$ | No | |
| Ethyl mercaptan | $\leqq$ 2 ppm | No | |
| Ethylene | $\leqq$ 2000 ppm | No | Pale pink（whole layer） |
| Propylene | $\leqq$ 1000 ppm | No | |
| Methanol | $\leqq$ 1000 ppm | No | |
| Hydrogen sulphide | $\leqq$ 80 ppm | No | |

## Calibration gas generation

Diffusion tube method