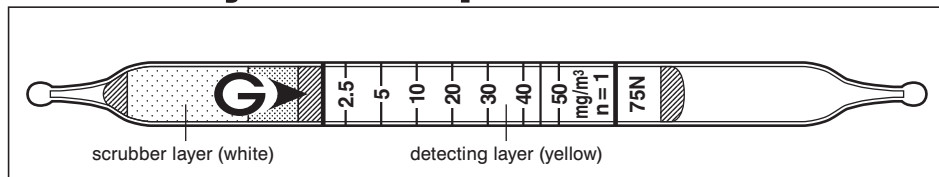


# tert-Butyl Mercaptan (CH<sub>3</sub>)<sub>3</sub>CSH No.75N



## Performance

|                        |                               |                             |                             |
|------------------------|-------------------------------|-----------------------------|-----------------------------|
| Measuring range        | 1.25 to 2.5 mg/m <sup>3</sup> | 2.5 to 50 mg/m <sup>3</sup> | 50 to 250 mg/m <sup>3</sup> |
| Number of pump strokes | 2 (200 ml)                    | 1 (100 ml)                  | 1/2 (50 ml)                 |
| Correction factor      | 1/2                           | 1                           | 5                           |
| Sampling time          | 3 min                         | 1.5 min                     | 45 sec                      |

Detecting limit : 0.5 mg/m<sup>3</sup> (2 pump strokes)

Colour change : Yellow → Pink

Corrections for temperature & humidity : Temperature correction is necessary.

Humidity correction is necessary.

Relative standard deviation : 10 % (for 2.5 to 20 mg/m<sup>3</sup>), 5 % (for 20 to 50 mg/m<sup>3</sup>)

Shelf life : 2 years

## Reaction principle

tert-Butyl mercaptan reacts with the reagent to form intermediate material which stains indicator pink.

## Possible coexisting substances and their interferences

| Substance         | Concentration               | Interference | Changes colour by itself to |
|-------------------|-----------------------------|--------------|-----------------------------|
| Hydrogen sulphide |                             | +            | } Pink                      |
| Phosphine         |                             | +            |                             |
| Other mercaptans  |                             | +            |                             |
| Methane           |                             | No           | No                          |
| Propane           | ≠ 30 %                      | No           | No                          |
| Cyclohexene       | ≠ 1000 (mg/m <sup>3</sup> ) | No           | No                          |
| Dimethyl sulphide | ≠ 25 (mg/m <sup>3</sup> )   | No           | No                          |

## Calibration gas generation

Diffusion tube method

## Special note

tert-Butyl mercaptan is used as an odorant in fuel gases for warning of their leakage.