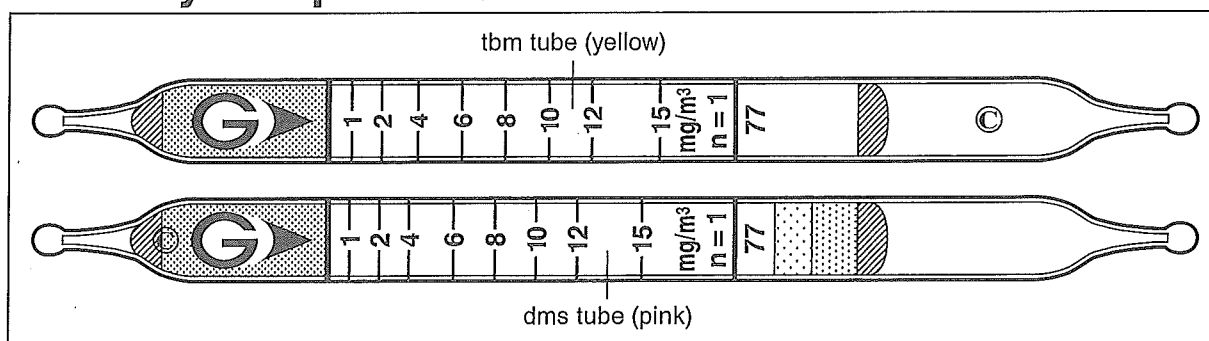


# tert-Butyl Mercaptan (CH<sub>3</sub>)<sub>3</sub>CSH and Dimethyl Sulphide (CH<sub>3</sub>)<sub>2</sub>S

No.77



## Performance

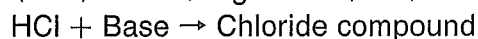
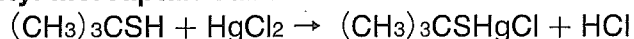
Detector tube	TBM Tube	DMS Tube
Measuring range	1-15 mg/m <sup>3</sup>	1-15 mg/m <sup>3</sup>
Number of pump stroke	1	1
Correction factor	1	1
Sampling time	2 min	
Detecting limit	0.2 mg/m <sup>3</sup> (n = 1)	0.2 mg/m <sup>3</sup> (n = 1)
Colour change	Yellow → Pink	Pink → Pale Yellow
Corrections for temperature & humidity	Temperature correction is necessary.	Unnecessary

Relative standard deviation : 10 % (for 1 to 5 mg/m<sup>3</sup>), 5 % (for 5 to 15 mg/m<sup>3</sup>)

Shelf life : 2 years (in the refrigerator)

## Reaction principle

### tert-Butyl Mercaptan Tube



### Dimethyl Sulphide Tube



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

### For tert-Butyl Mercaptan Tube

Substance	Concentration	Interference	Changes colour by itself to
Mercaptans		+	Pink
Hydrogen sulphide		+	Pink

### For Dimethyl Sulphide Tube

Substance	Concentration	Interference	Changes colour by itself to
Olefins		+	Pale yellow
Tetrahydrothyphen		+	Pale yellow

Hydrogen sulphide and Mercaptans do not give any effect on tube reading of DMS until the primary tube (TBM) become wholly discoloured.

## Calibration gas generation

For tert-Butyl Mercaptan Tube : Diffusion tube method

For Dimethyl Sulphide Tube : Permeation tube method