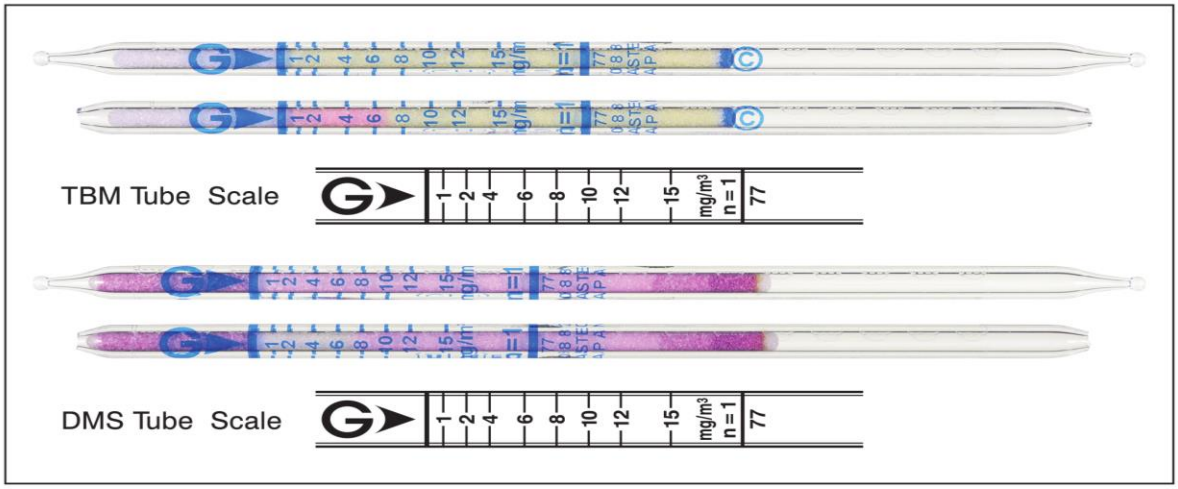
tert-Butyl Mercaptan (CH3) 3CSH and Dimethyl Sulphide (CH3) 2S

Part No.:77

tert-Butyl Mercaptan $(CH_3)_3CSH$ and Dimethyl Sulphide $(CH_3)_2S$ No.77



Performance

When used, these tubes are to be connected. See page 2-3.

Detector tube	TBM Tube	DMS Tube
Measuring range	1 to 15 mg/m³	1 to 15 mg/m³
Number of pump stroke	1 (100 mL)	1 (100 mL)
Correction factor	1	1
Sampling time	2 min	
Detecting limit	0.2 mg/m³ (n = 1)	0.2 mg/m³ (n = 1)
Colour change	Yellow → Pink	Pink → Pale yellow

Operating conditions: TBM tube ; Temperature 0 to 40 °C (32 to 104 °F) correction used
TBM tube ; Relative humidity 0 to 80 % correction not used
DMS tube ; Temperature 0 to 40 °C (32 to 104 °F) correction not used
DMS tube ; Relative humidity 0 to 80 % correction not used

Relative standard deviation : 10 % (for 1 to 5 mg/m³), 5 % (for 5 to 15 mg/m³)
Tube quantity and number of tests per box : 10 tubes for 5 tests
Shelf life : 24 months (in the refrigerator)

Reaction principle

tert-Butyl Mercaptan Tube : $(CH_3)_3CSH + HgCl_2 \rightarrow (CH_3)_3CSHgCl + HCl$
$HCl + Base \rightarrow Chloride$

Dimethyl Sulphide Tube : $(CH_3)_2S + KMnO_4 \rightarrow$ Reaction product

Possible coexisting substances and their interferences

For tert-Butyl Mercaptan Tube

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

For Dimethyl Sulphide Tube

Substance	Concentration	Interference	Changes colour by itself to
Olefins, Tetrahydrothiophene		+	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