

**Performance**

Measuring Range	2.5 to 30 mg/m ³	30 to 60 mg/m ³	60 to 150 mg/m ³
Number of Pump Stroke	2	1	1/2
Correction Factor	1	2	5
Sampling Time	1.5 minutes per pump stroke		
Detecting Limit	0.5 mg/m ³ (n=2)		
Colour Change	Yellow → Red		
Reaction Formula	tert-Butyl Mercaptan reacts with mercuric chloride to liberate hydrogen chloride which discolours the indicator to purple. $(\text{CH}_3)_3\text{CSH} + \text{HgCl}_2 \rightarrow (\text{CH}_3)_3\text{CSHgCl} + \text{HCl}$ $\text{HCl} + \text{Basic compounds} \rightarrow \text{Chlorides}$		
Coefficient of Variation	10% (for 2.5 to 10 mg/m ³), 5% (for 10 to 30 mg/m ³)		
Shelf Life	2 Years		
Corrections for temperature & humidity	Temperature correction is necessary		
Store the tubes at cool and dark place.			

Possible coexisting substances and their interferences

Substance	Concentration	Interference	Change colour by itself
Hydrogen sulphide	-	Plus error	Produce red stain
Phosphine	-	Plus error	Produce red stain
Other mercaptans	-	Plus error	Produce red stain

Calibration gas generation Diffusion tube method

TLV-TWA	TLV-STEL	Explosive range
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Special Note

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