

Mercaptans

(As C₂H₅-SH)

SEM-4L

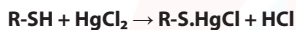


Specification :

	Extended	Standard	Extended
Measurement Range (SO ₂)	2.5- 5 ppm	5-120 ppm	120- 240 ppm
No. of Pump Strokes	2 (200 ml)	1 (100 ml)	0.5 (50 ml)
Volume Correction Factor (VCF)*	0.5	1.0	2.0
Sampling Time	1.5 minutes per pump stroke (100 ml)		
Color Change	Yellow → Pink		
Detection Limit	1 ppm (2 pump strokes)		
Shelf Life	1 year		
Relative standard deviation	± 10 – 15 %		

* Multiply the observed reading by the correction factor (VCF) to obtain the true concentration.

Reaction Principle :



HCl + Base → Chloride

Possible Interferences :

Compound	Concentration (ppm)	Interference	Color Change / Comments
Other mercaptans		+	Pink
Phosphine		+	Pink
Arsine		+	Pink
Hydrogen cyanide		+	Pink
Hydrogen sulphide	≤20	No	No Effect
Carbon dioxide	≤10%	No	No effect
Ammonia	≤100	No	No effect
Sulfur dioxide	≤30	No	No effect

Cross Sensitivity :

Compound	No. of strokes	Gas Correction Factor (GCF)*	Measuring range (ppm)	TLV (ppm)	Colour change
Methyl Mercaptan	1	1	5 – 120 ppm	0.5	Pink
t-Butyl Mercaptan	1	1	5 – 120 ppm	0.5	Pink

* Multiply the observed reading by the correction factor (GCF) to obtain the true concentration

Correction For Environmental Parameters :

Temperature	Not necessary between 0 - 40°C (32 - 104°F).
Relative humidity	Not necessary between 10 - 90 %.

Calibration Of The Tube :

Static gas dilution method.

TLV (TWA):0.5 ppm

TLV (STEL): ----

Flammable Range: 3-18 %