

Uniphos Detector Tube Data Sheet

Direct Reading Length of Stain Type

Mercaptan

R-SH

SEM-2M

TWA (TLV): 0.5 ppm

STEL (TLV): NA

Flammable Range: 3-18%

Specification:

Measurement Range	Extended	Standard	Extended
	0.5-10 ppm	1-20 ppm	2-40 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	2.0 minutes per pump stroke (100 mL)		
Color Change	Yellow → Pink		
Shelf Life	1 year		
Storage condition	Below 10°C (50°F)		
Calibration condition	Calibrated with Ethyl Mercaptan at 20°C (68°F) and 50% RH.		
Reaction Principle	$C_2H_5SH + HgCl_2 \rightarrow C_2H_5S.HgCl + HCl$ HCl + Base → Chloride		
Relative standard deviation	± 10 %		

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

Possible Interferences:

Compound	Concentration (ppm)	Interference	Colour change / Comments
Other Mercaptans		+	Yellow to Pink
PH ₃		+	Yellow to Pink
H ₂ S		+	Yellow to Pink
Arsine		+	Yellow to Pink
HCN		+	Yellow to Pink
CO ₂	10%	No	No effect
NH ₃	100	No	No effect
SO ₂	30	No	No effect

Other measurable compounds:

Compound	Correction Factor	No. of pump strokes	Measuring range
Methyl Mercaptan	1	1	1 - 20 ppm
t-Butyl Mercaptan	1	1	1 - 20 ppm

Correction for Environmental Parameters:

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



Manufactured By: Uniphos Envirotronic Pvt. Ltd.
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