

# Uniphos Detector Tube Data Sheet

Direct Reading Length of Stain Type

## t-Butyl Mercaptan

$C_4H_9SH$

## SBM-1.1

TLV (TWA): 0.5 ppm

TLV (STEL): ----

Flammable Range: ----

### Specification:

Measurement Range	Extended	Standard	Extended
	Do not extend	0.13 - 8 ppm	Do not extend
No. of Pump Strokes		2 (200 mL)	
Volume Correction Factor (VCF)*		1.0	
Sampling Time	1 minute per pump stroke (100 mL)		
Color Change	Yellow → Pink		
Shelf Life	1 year		
Storage condition	Below 10°C (50°F)		
Calibration condition	Calibrated at 20°C (68°F) and 50% RH.		
Reaction Principle	$C_4H_9SH + HgCl_2 \rightarrow CH_3S.HgCl + HCl$ $HCl + Base \rightarrow Chloride$		
Relative standard deviation	± 10 – 15 %		

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

### Possible Interferences:

Compound	Concentration (mg/m <sup>3</sup> )	Interference	Colour change / Comments
Other Mercaptans		+	Pink
Phosphine		+	Pink
Hydrogen sulphide		+	Pink
Ammonia	15	-	No effect
Sulphur dioxide	30	-	No effect
Carbon dioxide	100	-	No effect

### Other measurable compounds:

Compound	Correction Factor	No. of pump strokes	Measuring range
Ethyl Mercaptan	1	2	0.13-8 ppm
Methyl Mercaptan	1	2	0.13-8 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.  
Nahuli (PO), Umbergaon (Tal.)  
Valsad (Dist), Gujarat, India – 396108

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