Uniphos Detector Tube Data Sheet

Direct Reading Length of Stain Type

Phosphine

PH₃

SPH-1L

TLV (TWA): 0.3 ppm TLV (STEL): 1 ppm Flammable Range: ~1.8 - 100%

Specification:

Measurement Range	Extended	Standard	Extended
	Do not extend	0.05 – 2.5 ppm	2.5 – 5 ppm
No. of Pump Strokes		2 (200 mL)	1 (100 mL)
Volume Correction Factor (VCF)*		1.0	2.0
Sampling Time	2.0 minutes per pump stroke (100 mL)		
Color Change	Yellow → Pink		
Shelf Life	2 years		
Storage condition	Below 10°C (50°F)		
Calibration condition	Calibrated at 20°C (68°F) and 50% RH.		
Reaction Principle	$PH_3 + 3HgCl_2 \rightarrow P(HgCl)_3 + 3HCl$		
	HCI + Base → Chloride		
Relative standard deviation	± 10 – 15 %		

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

Possible Interferences:

Compound	Concentration (ppm)	Interference	Colour change / Comments
Arsine		+	Pink
Sulphur dioxide	200	No	No Effect
Hydrogen Sulphide		+	Pink

Correction for Environmental Parameters:

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