

Uniphos Detector Tube Data Sheet

Direct Reading Length of Stain Type

Toluene

TLV (TWA): 50 ppm

C₇H₈

TLV (STEL): ----

STO-2

Flammable Range: 1-7%

Specification:

Measurement Range	Extended	Standard	Extended
	1 - 2 ppm	2 - 50 ppm	Do not extend
No. of Pump Strokes	4 (400 mL)	2 (200 mL)	
Volume Correction Factor (VCF)*	0.5	1.0	
Sampling Time	2 minutes per pump stroke (100 mL)		
Color Change	White → Brown		
Shelf Life	1 year		
Storage condition	Below 10°C (50°F)		
Calibration condition	Calibrated at 20°C (68°F) and 50% RH.		
Reaction Principle	$C_7H_8 + I_2O_5 + H_2S_2O_7 \rightarrow I_2$		
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
Benzene		+	Brown
Isobutylene	30	+	Pale Brown
Xylene	100	+	Brown
Carbon monoxide	10	+	Faint beige entire tube
Hydrogen Sulphide	30	No	No effect
Sulphur dioxide	50	No	No effect
n-Hexane		No	No effect

Other Measurable compounds:

Compound	Correction Factor	No. Of Pump strokes	Measuring Range
Aromatic Hydrocarbons (As Toluene)	1	2	2 – 50 ppm

Correction for Environmental Parameters:

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

Pressure- Multiply the reading with compensation factor F.

$$F = \frac{1013 \text{ mbar}}{\text{Actual atmospheric pressure in (mbar)}} \quad \text{or} \quad \frac{760 \text{ (mmHg)}}{\text{Actual atmospheric pressure in (mmHg)}}$$



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