

Uniphos Detector Tube Data Sheet

Direct Reading Length of Stain Type

Carbonyl Sulphide COS

SCU-3

TLV (TWA): 5 ppm

TLV (STEL): -----

Flammable Range: 12 – 19 %

Specification:

Measurement Range	Extended	Standard	Extended
	2.5 – 5 ppm	5 – 100 ppm	100 – 200 ppm
No. of Pump Strokes	4 (400 mL)	2 (200 mL)	1 (100 mL)
Volume Correction Factor (VCF)*	0.5	1.0	2.0
Sampling Time	2 minutes per pump stroke (100 mL)		
Color Change	Blue → Yellow		
Shelf Life	2 years		
Storage condition	Below 10°C (50°F)		
Calibration condition	Calibrated at 20°C (68°F) and 50% RH.		
Reaction Principle (Double Tube)	$\text{COS} + \text{I}_2\text{O}_5 + \text{H}_2\text{SO}_4 \rightarrow \text{SO}_2 + \text{CO}_2$ (Pre-treatment tube) $\text{SO}_2 + \text{BaCl}_2 + \text{H}_2\text{O} \rightarrow \text{BaSO}_3 + 2\text{HCl}$ $\text{HCl} + \text{Base} \rightarrow \text{Chloride}$ (Detector tube)		
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
Carbon disulphide		+	Yellow
Sulphur dioxide		+	Yellow

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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