

Uniphos Detector Tube Data Sheet

Direct Reading Length of Stain Type

Ethyl Acetate



SEA-4

TLV (TWA): 400 ppm

TLV (STEL): -----

Flammable Range: 2.0 – 11.5 %

Specification:

	Extended	Standard	Extended
Measurement Range	Do not extend	20 – 800 ppm	Do not extend
No. of Pump Strokes		2 (200 mL)	
Volume Correction Factor (VCF)*		1.0	
Sampling Time	3 minutes per pump stroke (100 mL)		
Color Change	Yellow → Blackish Brown		
Shelf Life	1 years		
Storage condition	Below 10° C (50° F)		
Calibration condition	Calibrated at 20° C (68° F) and 50% RH.		
Reaction Principle	$C_4H_8O_2 + Cr^{6+} + H_2SO_4 \rightarrow Cr^{3+}$		
Relative standard deviation	± 10 – 15 %		

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

Possible Interferences:

Compound	Interference	Colour change / Comments
Alcohols (Ethanol)	+	Brown green (400 ppm)
Ketones (Acetone)	+	Brown (400 ppm)
Aromatic Hydrocarbons (Toluene)	+	Light greenish (400 ppm)
Aromatic Hydrocarbons (Benzene)	+	Light greenish (100 ppm)
Methyl Acrylate	+	Light greenish (150 ppm)

Other measurable compounds:

Other compounds (n=2)	Conc. of Ethyl acetate on tube (ppm) n=2						
	20	50	100	200	400	600	800
p-Cymene	3	8	14	25	50	75	100
Mesityl oxide	75	175	450	950	1975	3000	4000
1,3 Diisopropyl benzene	6	15	27	38	55	70	90
Aliphatic Hydrocarbons (as EthylAcetate)	20	50	100	200	400	600	800

Correction for Environmental Parameters:

Temperature °C (°F)	5 (41)	10 (50)	20 (68)	30 (86)	40 (104)
Temperature Correction factor (TCF)*	2.3	1.2	1.00	0.70	0.50

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

Relative humidity – Not necessary between 20 – 80 % RH.

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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