

Performance

Measuring range	20 to 800 ppm	
Number of pump strokes	2(200 mL)	
Correction factor	1	
Sampling time	3 min	

 $\begin{array}{lll} \mbox{Detecting limit:} & \mbox{5 ppm } (2 \mbox{ pump strokes}) \\ \mbox{Colour change:} & \mbox{Yellow} \rightarrow \mbox{Blackish brown} \\ \end{array}$

(few minutes later) → Pale blue

Operating conditions : Temperature 5 to 40 $^{\circ}$ C (41 to 104 $^{\circ}$ F) correction used

Relative humidity 0 to 90 % correction not used 15 % (for 20 to 200 ppm), 10 % (for 200 to 800 ppm)

Relative standard deviation: 15 % (for 20 to 200 ppm Tube quantity and number of tests per box: 10 tubes for 10 tests

Shelf life: 24 months

Reaction principle

 $CH_3CO_2C_2H_5 + Cr^6 + H_2SO_4 \rightarrow Cr^3 +$

Possible coexisting substances and their interferences

Substance	Concentration	Interference	Changes colour by itself to
Alcohols (Methanol)		+	Pale blue (≧ 20 ppm)
Ketones (Acetone)		+	Blackish brown (≥ 10 ppm)
Esters (Methyl acetate)		+	Blackish brown (≥ 30 ppm)
Aromatic hydrocarbons (Benzene)		+	Pale brown (whole layer) (≥ 30 ppm)
Aromatic hydrocarbons (Toluene)		+	Blackish brown (≥ 1 ppm)

Other substances measurable with this detector tube

Substance	Correction	No. of pump strokes	Measuring range
Cymene	Factor: 0.12	2	2.4 to 96 ppm
Diisopropyl benzene	by scale	2	16 to 108 ppm
Ethyl acrylate	Factor: 0.42	2	8.4 to 336 ppm
2-Hexyl alcohol	Factor: 8.4	2	168 to 1680 ppm
Isopropyl ether	Factor: 0.88	2	17.6 to 704 ppm
Mesityl oxide	Factor: 3.6	2	72 to 1080 ppm
Methyl acrylate	Factor: 0.36	2	7.2 to 288 ppm
Methyl isothiocyanate	Factor: 0.27	2	5.4 to 216 ppm

Calibration gas generation

Diffusion tube method