

Performance

Measuring range	5 to 80 ppm	80 to 232 ppm
Number of pump strokes	1(100 mL)	1/2(50 mL)
Correction factor	1	2.9
Sampling time	2 min	1 min

Detecting limit : 1.4 ppm (1 pump stroke)
Colour change : Pale yellow → Pale blue

Operating conditions : Temperature 0 to 40 $^{\circ}$ C (32 to 104 $^{\circ}$ F) correction used

Relative humidity 0 to 90 % correction not used

Relative standard deviation : 10 % (for 5 to 10 ppm), 5 % (for 10 to 80 ppm)

Tube quantity and number of tests per box: 10 tubes for 10 tests

Shelf life: 12 months (in the refrigerator)

Reaction principle

 $C_4H_8O + Cr^6 + H_3PO_4 \rightarrow Cr^3 +$

Possible coexisting substances and their interferences

Substance	Concentration	Interference	Changes colour by itself to
Acrolein	≧ 30 ppm	+	Pale vermilion (≥ 30 ppm)
Acetone	≤ 200 ppm	No	Pale vermilion (≥ 200 ppm)
Acetic acid	≤ 200 ppm	No	No (≤ 400 ppm)
Ethyl acetate	≥ 1 ppm	+	Pale vermilion (≥ 2 ppm)
Diethyl ether	≥ 1 ppm	+	Pale blue
Trichloroethylene	≤ 100 ppm	No	Pale vermilion (≥ 100 ppm)
Toluene	≥ 1 ppm	+	White (≥ 4 ppm)
n-Hexane	≥ 10 ppm	Can not use due to	Pale vermilion (≥ 10 ppm)
		Unclear demarcation	
Benzen	≤ 100 ppm	No	White (≥ 500 ppm)
Methanol	≧ 2 ppm	+	Pale vermilion (≥ 5 ppm)
		 	Pale blue (≥ 9 ppm)
Methyl ethyl ketone	≥ 2 ppm	+	Pale vermilion (≥ 3 ppm)

Calibration gas generation

Diffusion tube method