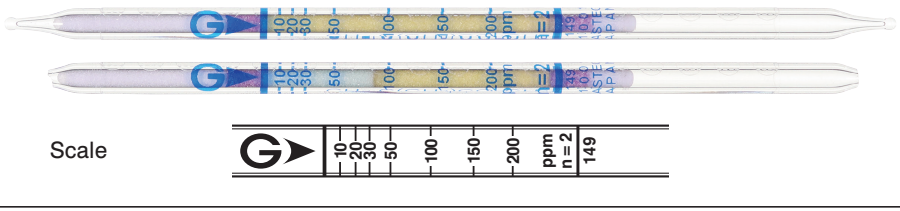
Methyl Methacrylate $CH_2{:}C(CH_3)CO_2CH_3$ No.149



Performance

Measuring range	10 to 200 ppm	200 to 500 ppm
Number of pump strokes	2 (200 mL)	1 (100 mL)
Correction factor	1	2.5
Sampling time	3 min	1.5 min

Detecting limit : 1 ppm (2 pump strokes)
Colour change : Yellow → Pale blue
Operating conditions : Temperature 0 to 40 °C (32 to 104 °F) correction used
Relative humidity 0 to 90 % correction not used
Relative standard deviation : 10 %(for 10 to 50 ppm), 5 %(for 50 to 200 ppm)
Tube quantity and number of tests per box : 10 tubes for 10 tests
Shelf life : 24 months

Reaction principle

$CH_2{:}C(CH_3)CO_2CH_3 + Cr^{6+} + H_2SO_4 \rightarrow Cr^{3+}$

Possible coexisting substances and their interferences

Substance	Concentration	Interference	Changes colour by itself to
Alcohols (methanol)		+	Pale blue (≧ 5 ppm)
Ketones (acetone)		+	Blackish brown (≧ 10 ppm)
Esters (methyl acetate)		+	No stain observed immediately. A blackish brown colour observed later (≧ 30 ppm)

Other substance measurable with this detector tube

Substance	Correction	No. of pump strokes	Measuring range
Allyl isothiocyanate	Factor : 0.44	2	4.4 to 88 ppm

Calibration gas generation

Diffusion tube method