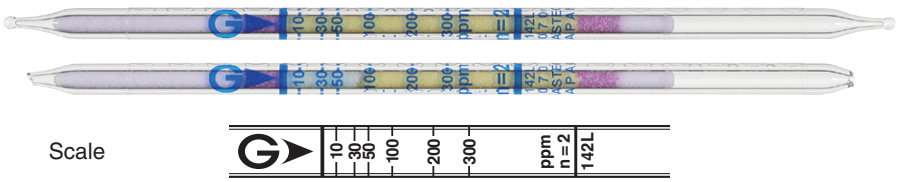
Butyl Acetate $CH_3CO_2(CH_2)_3CH_3$ or $CH_3CO_2C_4H_9$ No.142L



Performance

Measuring range	10 to 300 ppm
Number of pump strokes	2 (200 mL)
Correction factor	1
Sampling time	3 min

Detecting limit : 2 ppm (2 pump strokes)
Colour change : Yellow → Blackish brown (few minutes later) → Pale blue
Operating conditions : Temperature 0 to 40 ℃ (32 to 104 ℉) correction used
Relative humidity 0 to 90 % correction not used
Relative standard deviation : 10 % (for 10 to 300 ppm)
Tube quantity and number of tests per box : 10 tubes for 10 tests
Shelf life : 24 months

Reaction principle

$CH_3CO_2(CH_2)_3CH_3 + Cr^{6+} + H_2SO_4 \rightarrow Cr^{3+}$

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)		+	Blackish brown(≧ 30 ppm)
Aromatic hydrocarbons (benzene)		No (The undiscoloured part of reagent changes colour to light brown.)	Pale brown for 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
Isobutyl acrylate	Factor : 0.55	2	5.5 to 165 ppm
Butyl acrylate	Factor : 0.7	2	7 to 210 ppm
Diethyl ketone	by scale	2	5 to 513 ppm

Calibration gas generation

Diffusion tube method