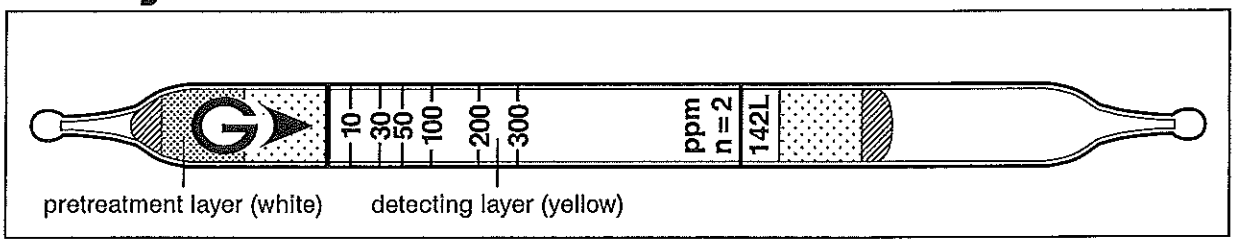
Butyl Acetate $CH_3CO_2(CH_2)_3CH_3$ or $CH_3CO_2C_4H_9$ No.142L



Performance

Measuring range	10 to 300 ppm
Number of pump strokes	2 (200 ml)
Correction factor	1
Sampling time	4 min

Detecting limit : 2 ppm (2 pump strokes)
Colour change : Yellow → Dark brown (few minutes later) → Pale blue
Corrections for temperature & humidity : Temperature correction is necessary.
Relative standard deviation : 15 % (for 10 to 100 ppm), 10 % (100 to 300 ppm)
Shelf life : 2 years

Reaction principle

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

Possible coexisting substances and their interferences (NOTE : Page 2-5)

Substance	Concentration	Interference	Changes colour by itself to
Alcohols		+	Dark brown (few minutes later) → Pale blue
Aromatic hydrocarbons		+	
Esters		+	
Ketones		+	

Water vapour is trapped in the pretreatment (white) layer.

Other substances measurable with this detector tube

Substance	Correction	No. of pump strokes	Measuring range
Isobutyl acrylate	Factor : 0.26	2	2.6 to 78 ppm
Butyl acrylate	Factor : 0.7	2	7 to 210 ppm

Calibration gas generation

Diffusion tube method

TLV-TWA : 150 ppm TLV-STEL : 200 ppm Explosive range : 1.7 to 7.6 %