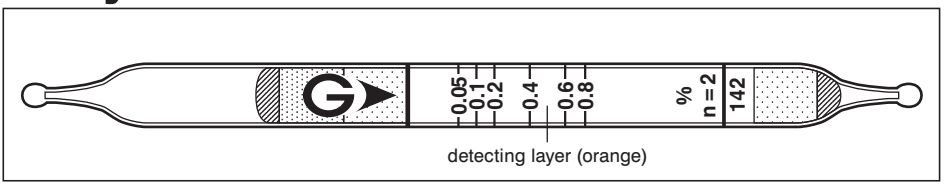
Butyl Acetate $CH_3CO_2(CH_2)_3CH_3$ or $CH_3CO_2C_4H_9$ No.142



Performance

Measuring range	0.05 to 0.8 %
Number of pump strokes	2 (200 ml)
Correction factor	1
Sampling time	1.5 min

Detecting limit : 0.015 % (2 pump strokes)
Colour change : Orange →Greenish brown
Corrections for temperature & humidity : Temperature correction is necessary.
Relative standard deviation : 15 %(for 0.01 to 0.2 %), 10 %(for 0.2 to 0.8 %)
Shelf life : 3 years

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
Propane	≧ 0.2 %	Cannot use	Pale brown (whole layer) (≧ 0.2 %)
Alcohols, Esters, Ketones		+	Greenish brown
Toluene	≧ 25 ppm	Two layers (Greemish brown & Pale brown)	Pale brown (≧ 15 ppm)
Hydrogen sulphide	≧ 100 ppm		Greenish brown (≧ 25 ppm)
Sulphur dioxide	≧ 100 ppm		Brown (≧ 50 ppm)

Calibration gas generation

Static gas dilution method