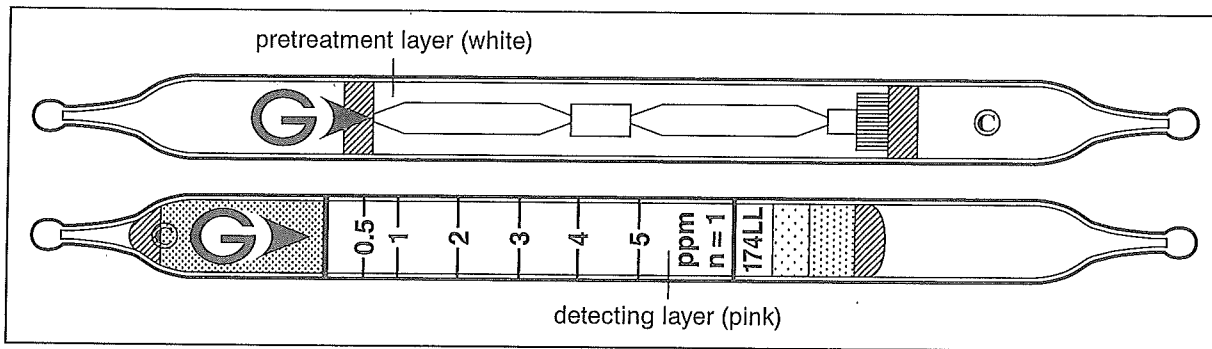


1,3-Butadiene $\text{CH}_2:\text{CHCH}:\text{CH}_2$

No.174LL



Performance

When used, these tubes are to be connected. See page 2-3.

Measuring range	0.5 to 5 ppm
Number of pump strokes	1 (100 ml)
Correction factor	1
Sampling time	3 min

Detecting limit : 0.1 ppm (1 pump stroke)
 Colour change : Pink → Pale yellow
 Corrections for temperature & humidity : Unnecessary
 Relative standard deviation : 10 % (for 0.5 to 1 ppm), 5 % (for 1 to 5 ppm)
 Shelf life : 3 years (in the refrigerator)

Reaction principle

$\text{CH}_2:\text{CHCH}:\text{CH}_2 + \text{KMnO}_4$ (pink) → Pale yellow product

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

Substance	Concentration	Interference	Changes colour by itself to
Ammonia		No	} No
Carbon monoxide		No	
Carbon dioxide		No	
Hydrogen sulphide		No	
Hydrogen cyanide		No	
Acetylene	≧ 50 ppm	+	White
Olefins		+	Pale yellow

Calibration gas generation

Permeation tube method