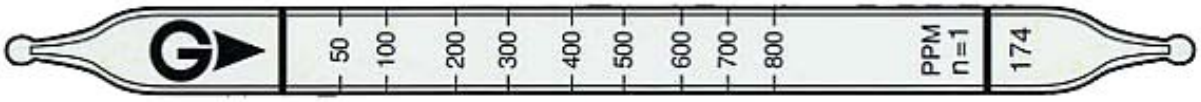
1,3-Butadiene CH_2:CHCH:CH_2 NO.174



Performance

Measuring Range	50 to 800 ppm
Number of Pump Strokes	1
Correction Factor	1
Sampling Time	3 minutes per pump stroke
Detecting Limit	10 ppm (n=1)
Colour Change	Pale yellow ⟶ White
Reaction Principle	1,3-Butadiene reacts with palladium sulphate and ammonium molybdate to produce white compound. CH_2:CHCH:CH_2 + $(NH_4)_2MoO_4$ + $PdSO_4$ ⟶ White product
Coefficient of Variation	10% (for 50 to 200 ppm), 5% (for 200 to 800 ppm)
Shelf Life	3 Years
Corrections for temperature & humidity	Temperature correction is necessary
Store the tubes at cool and dark place.	

Possible coexisting substances and their interferences

Substance	Concentration	Interference	Change colour by itself
Acetylene, Carbon monoxide	≧10 ppm	Plus error	Discolour to blue
Ammonia, Hydrogen cyanide	-	Plus error	Discolour to white
Hydrogen	≧20%	Plus error	Discolours to blue for whole layer
Hydrogen sulphide	≧10 ppm	Plus error	Discolours to black
Ethylene	≧1 ppm	Plus error	Discolours to blue
Styrene	-	Plus error	Discolour to pale blue

Other substance measurable with this detector tube

Substance	Correction Factor	Pump Strokes	Measuring Range
1,3-Pentadiene	5.0	1	250 to 4000 ppm

Calibration gas generation Static gas dilution method

TLV-TWA	TLV-STEL	Explosive range
2ppm	-	2.0 to 12%