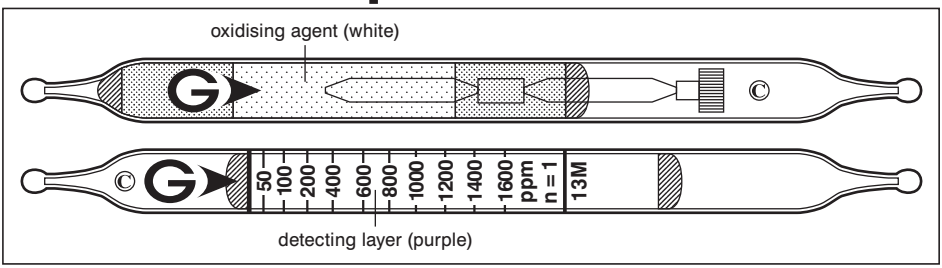
Carbon Disulphide CS_2 No.13M



When used, these tubes are to be connected.

Performance

Measuring range	20 to 50 ppm	50 to 1600 ppm	1600 to 4000 ppm
Number of pump strokes	2 (200 ml)	1 (100 ml)	1/2 (50 ml)
Correction factor	0.4	1	2.5
Sampling time	3 min	1.5 min	45 sec

Detecting limit : 10 ppm (2 pump strokes)
Colour change : Purple → Yellow
Corrections for temperature & humidity : Temperature correction is necessary.
Relative standard deviation : 10 %(for 50 to 400 ppm), 5 %(for 400 to 1600 ppm)
Shelf life : 3 years

Reaction principle

Pretreatment tube : $CS_2 + I_2O_5 + H_2S_2O_7 \rightarrow SO_2 + CO_2$
Detector tube : $SO_2 + BaCl_2 + H_2O \rightarrow BaSO_3 + 2HCl$
$HCl + Base \rightarrow Chloride$

Possible coexisting substances and their interferences

Substance	Concentration	Interference	Changes colour by itself to
Hydrocarbons (lower class)	≧ 1000 ppm	+	Yellow
Hydrogen sulphide		+	
Carbonyl sulphide		+	
Sulphur dioxide		+	

Up to 1000 ppm of lower class hydrocarbons are trapped in the white layer in the pretreatment tube.

Calibration gas generation

Diffusion tube method