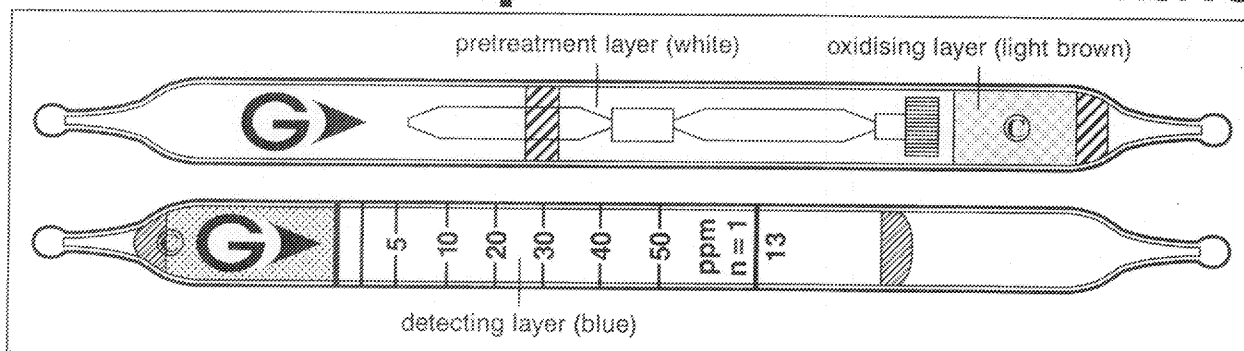


Carbon Disulphide CS₂

No.13



Performance

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

Measuring range	0.63 to 1.25	1.25 to 2.5	(2.5) to 50 ppm	50 to 100 ppm
Number of pump strokes	4 (400 ml)	2 (200 ml)	1 (100 ml)	1/2 (50 ml)
Correction factor	1/4	1/2	1	2
Sampling time	12 min	6 min	3 min	1.5 min

Detecting limit : 0.3 ppm (4 pump strokes)

Colour change : Blue → Yellow

Corrections for temperature & humidity : Temperature correction is necessary.

Relative standard deviation : 10 % (for 2.5 to 10 ppm), 5 % (for 10 to 50 ppm)

Shelf life : 3 years

Reaction principle

Pretreatment tube : $\text{CS}_2 + \text{CrO}_3 + \text{H}_2\text{S}_2\text{O}_7 \rightarrow \text{SO}_2 + \text{CO}_2$

Detector tube : $\text{SO}_2 + \text{BaCl}_2 + \text{H}_2\text{O} \rightarrow \text{BaSO}_3 + 2\text{HCl}$

$\text{HCl} + \text{Base} \rightarrow \text{Chloride}$

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

Substance	Concentration	Interference	Changes colour by itself to
Sulphur dioxide	$\geq 1/5$	+	Yellow
Ammonia		No	No
Hydrogen Cyanide	≤ 200 ppm	No	No

Hydrogen Sulphide is trapped in the pretreatment layer.

Calibration gas generation

Diffusion tube method