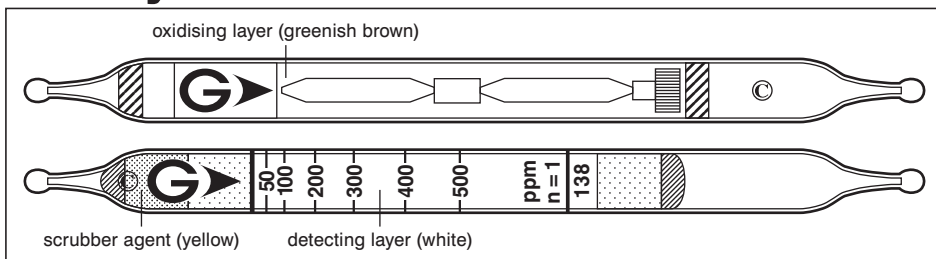


Methylene Chloride CH_2Cl_2

No.138



Performance

When used, these tubes are to be connected.

Measuring range	20 to 50 ppm	50 to 500 ppm
Number of pump strokes	2 (200 ml)	1 (100 ml)
Correction factor	0.4	1
Sampling time	6 min	3 min

Detecting limit : 10 ppm (2 pump strokes)

Colour change : White → Pale pink

Corrections for temperature & humidity : Temperature correction is necessary.

Relative standard deviation : 15 % (for 50 to 100 ppm), 10 % (for 100 to 500 ppm)

Shelf life : 3 years

Reaction principle

Pretreatment tube : $\text{CH}_2\text{Cl}_2 + \text{CrO}_3 + \text{H}_2\text{S}_2\text{O}_7 \rightarrow \text{Cl}_2$

Detector tube : $\text{Cl}_2 + 3,3,5,5\text{-Tetramethylbenzidine} \rightarrow \text{Holoquinone}$

Possible coexisting substances and their interferences

Substance	Concentration	Interference	Changes colour by itself
Chlorine, Bromine, Iodine		+	Pale pink
Unsaturated halogenated HCs		+	Pale pink
Saturated halogenated HCs		+	Pale pink

Other substance measurable with this detector tube

Substance	Correction	No. of pump strokes	Measuring range
Ethyl chloride	Factor : 0.3	1	15 to 150 ppm

Calibration gas generation

Diffusion tube method