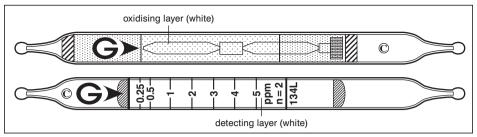
# Carbon Tetrachloride CC14

No.134L



#### Performance

When used, these tubes are to be connected.

Measuring range	0.25 to 5 ppm	5 to 11 ppm
Number of pump strokes	2(200 ml)	1(100 ml)
Correction factor	1	2.2
Sampling time	4 min	2 min

Detecting limit: 0.04 ppm (2 pump strokes)

Colour change : White → Yellow Corrections for temperature & humidity : Unnecessary.

Relative standard deviation: 10 % (for 0.25 to 1 ppm), 5 % (for 1 to 5 ppm)

Shelf life: 1 year (in the refrigerator)

### Reaction principle

 $CCl_4 + I_2O_5 + H_2S_2O_7 \rightarrow COCl_2$ 

 $COCl<sub>2</sub> + (CH<sub>3</sub>)<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>CHO \rightarrow (CH<sub>3</sub>)<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>CHCl<sub>2</sub> + CO<sub>2</sub>$ 

(CH<sub>3</sub>)<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>CHCl<sub>2</sub> + (C<sub>6</sub>H<sub>5</sub>)<sub>2</sub>NH(White) → Reaction product (Yellow)

## Possible coexisting substances and their interferences

Substance	Concentration	Interference	Changes colour by itself to
Hydrogen chloride		No	No
Chlorine, Bromine	≥ 3/10	+	No (≦ 0.04 ppm)
Methyl bromide	≥ 2.5 times	+	Pale yellow ( $\geq$ 2.5 ppm)
1,1,1-Trichloroethane	≥ 14 ppm	+	No (≦ 17 ppm)

## Other substance measurable with this detector tube

Substance	Correction	No. of pump strokes	Measuring range
Chloropicrin	Factor: 1.1	2	0.28 to 5.5 ppm

### Calibration gas generation

Diffusion tube method