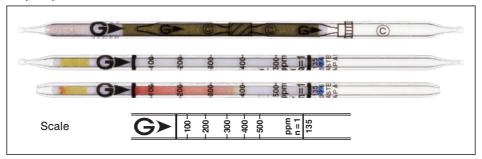
# 1,1,1-Trichloroethane CH₃CCI₃

# No.135



#### Performance

When used, these tubes are to be connected.

Measuring range	100 to 500 ppm	500 to 2000 ppm
Number of pump strokes	1(100 mL)	1/2(50 mL)
Correction factor	1	4
Sampling time	3 min	1.5 min

Detecting limit : 50 ppm (1 pump stroke)
Colour change : White → Reddish orange

Operating conditions: Temperature 0 to 40 °C (32 to 104 °F) correction used

Relative humidity 0 to 90 % correction not used 10 % (for 100 to 200 ppm), 5 % (for 200 to 500 ppm)

Tube quantity and number of tests per box: 10 tubes for 5 tests

Shelf life: 36 months

### Reaction principle

CH<sub>3</sub>CCl<sub>3</sub> + CrO<sub>3</sub> + H<sub>2</sub>S<sub>2</sub>O<sub>7</sub> → Cl<sub>2</sub>

Relative standard deviation:

Cl<sub>2</sub> + 3,3',5,5'-Tetramethylbenzidine → Reddish orange product

## Possible coexisting substances and their interferences

Substance	Concentration	Interference	Changes colour by itself to
Chlorine, Bromine, Iodine		+	Reddish orange
Chloroform, Dichloromethane		+	Reddish orange
Carbon tetrachroride		No	No
Methyl bromide		+	Reddish orange
Trichloroethylene,		+	Reddish orange
Tetrachloroethylene			_

#### Other substances measurable with this detector tube

Substance	Correction	No. of pump strokes	Measuring range
Chlorobromomethane	Factor: 0.22	1	22 to 110 ppm
1,1-Dichloroethane	Factor: 0.9	1	90 to 450 ppm
1,1,2-Trichloroethane	by scale	2	220 to 750 ppm
1,2-Dichloroethane	Factor :4.0	1	400 to 2000 ppm

### Calibration gas generation

High pressure gas cylinder method