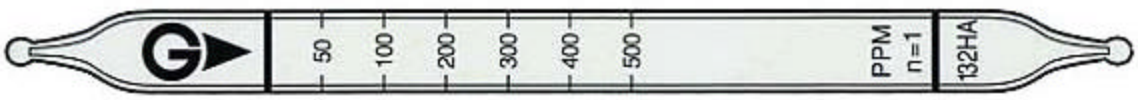
How to read this chart

Trichloroethylene $Cl_2C{:}CHCl$ NO.132HA



Performance

Measuring Range	20 to 50 ppm	50 to 500 ppm	500 to 1300 ppm
Number of Pump Strokes	2	1	1/2
Correction Factor	0.4	1	2.6
Sampling Time	45 seconds per pump stroke		
Detecting Limit	4 ppm (n=2)		
Color Change	Yellow ⟶ Reddish Purple		
Reaction Principle	Trichloroethylene is decomposed by nascent oxygen by oxidizing agent to liberate hydrogen chloride which discolors indicator to reddish purple. $Cl_2C{:}CHCl + PbO_2 + H_2SO_4 \longrightarrow HCl$ HCl + Basic Compound ⟶ Chloride		
Coefficient of Variation	10% (for 50 to 100 ppm), 5% (for 100 to 500 ppm)		
Shelf Life	2 Years		
Corrections for temperature & humidity	Temperature correction is necessary		
Store the tubes in the refrigerator to keep at 10 °C (50°F) or below.			

Possible coexisting substances and their interferences (NOTE)

Substance	Concentration	Interference	Change color by itself
Nitric Oxide, Nitrogen dioxide	-	No effect	No discoloration
Hydrogen chloride, Chlorine, Bromine	-	Plus error	Produce reddish purple stain
Acetone	200 ppm	No effect	No discoloration
1,1,1-Trichloroethane	-	Plus error	Produce reddish purple at 3000 ppm
Unsaturated Halogenated HCs	-	Plus error	Produces reddish purple stain
Aromatic hydrocarbons	100ppm	Minus error	No discoloration

Other substance measurable with this detector tube

Substance	Correction Factor	Pump Strokes	Measuring Range
1,2-Dichloroethylene	1.6	1	80 to 800 ppm
1,3-Dichloropropene	0.9	2	45 to 450 ppm

Calibration gas generation	Diffusion tube method

TLV-TWA	TLV-STEL	Explosive range
50ppm	100ppm	-

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