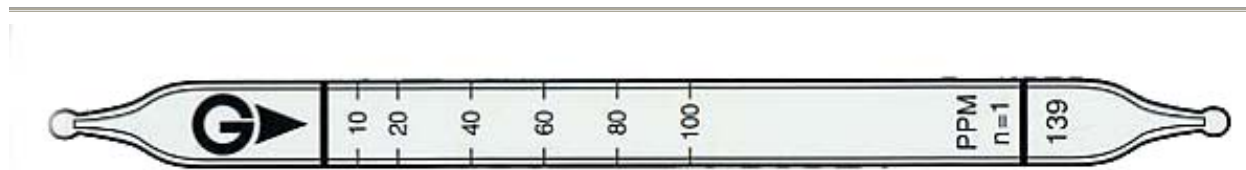


1,2-Dichloroethylene CICH:CHCI

NO.139



Performance

Measuring Range	5 to 10 ppm	10 to 100 ppm	100 to 250ppm
Number of Pump Strokes	2	1	1/2
Correction Factor	1/2	1	2.5
Sampling Time	1 minute per pump stroke		
Detecting Limit	1 ppm (n=2)		
Colour Change	Yellow → Reddish Purple		
Reaction Principle	1,2-Dichloroethylene is decomposed by nascent oxygen by oxidizing agent to liberate hydrogen chloride which discolours indicator to reddish purple. $\text{CICH:CHCI} + \text{PbO}_2 + \text{H}_2\text{SO}_4 \longrightarrow \text{HCl}$ $\text{HCl} + \text{Base} \longrightarrow \text{Chlorine}$		
Coefficient of Variation	10% (for 10 to 20 ppm), 5% (for 20 to 100 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

Substance	Concentration	Interference	Change colour by itself
Nitrogen oxides	-	No effect	No discoloration
Hydrogen chloride, Halogens	-	Plus error	Produces reddish purple stain
Tetrachloroethylene	-	Plus error	Produces reddish purple stain
Trichloroethylene	-	Plus error	Produces reddish purple stain

Calibration gas generation Diffusion tube method

TLV-TWA	TLV-STEL	Explosive range
200ppm	-	5.6 to 12.8 %