

Performance

Terrormance				
Measuring Range	2.5 to 300 ppm			
Number of Pump Strokes	2			
Correction Factor	1			
Sampling Time	1.5 minutes per pump stroke			
Detecting Limit	1 ppm (n=2)			
Colour Change	White → Light brown			
Reaction Principle	o-Dichlorobenzene reacts with iodine pentoxide to liberate lodine to discolour the reagent to light brown.			
	$C_6H_4CI_2 + I_2O_5 + H_2S_2O_7 \longrightarrow I_2$			
Coefficient of Variation	10% (for 2.5 to 10 ppm), 5% (for 30 to 300 ppm)			
Shelf Life	3 Years			
Corrections for temperature & humidity	Temperature correction is necessary			
Store the tubes at cool and dark place.				

Possible coexisting substances and their interferences

Substance	Concentration	Interference	Change colour by itself
Aromatic hydrocarbons	-	Plus error	Produce light brown
Acetylene	<u>≥</u> 0.2%	Plus error	Produce light brown
Carbon monoxide	<u>≥</u> 0.1%	Plus error	to whole layer
Ethylene,Esters	<u>≥</u> 0.2%	Plus error	
Hexane	<u>≥</u> 0.2%	Plus error	
Alcohols, Ketones	<u>≥</u> 1%	Plus error	No discoloration

Other substance measurable with this detector tube

Substance	Correction Factor	Pump Strokes	Measuring Range
m-Dichlorobenzene	1.0	2	2.5 to 300 ppm
p-Dichlorobenzene	1.0	2	2.5 to 300 ppm

Calibration gas generation Diffusion tube method

TLV-TWA	TLV-STEL	Explosive range
25ppm	50ppm	2.2 to 12%