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Gastec Tube Datasheet

Carbon Disulfide CS_2 NO.GAS13

Performance

Measuring Range	0.63 to 1.25 ppm	1.25 to 2.5 ppm	2.5 to 50 ppm	50 to 100 ppm
Number of Pump Stroke	4	2	1	1/2
Correction Factor	1/4	1/2	1	2
Sampling Time	3 minutes per pump stroke			
Detecting Limit	0.3 ppm (n=4)			
Colour Change	Blue ⟶ Yellow			
Reaction Principle	Carbon Disulfide is oxidized by nascent Oxygen, which is generated by the reaction of Chromic Acid and Sulphuric Acid to Sulphur Dioxide. Sulphur Dioxide neutralizes Barium Chloride, discolouring pH indicator to yellow. $CS_2 + CrO_3 + H_2S_2O_7 \rightarrow SO_2 + CO_2$ $SO_2 + BaCl_2 + H_2O \rightarrow BaSO_3 + 2HCl$ HCl + Base⟶Chloride			
Coefficient of Variation	10% (for 2.5 to 10 ppm), 5% (for 10 to 50 ppm)			
Shelf Life	Up to 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	Changes colour by itself to
Ammonia	-	No effect	No discoloration
Hydrogen cyanide	≧200ppm	No effect	No discoloration
Sulphur dioxide	≧1/5 time	Plus error	Produces yellow stain

Calibration gas generation Diffusion tube method

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