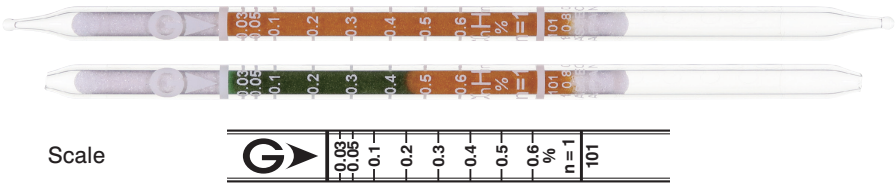
Gasoline CnHm

No.101



Performance

This detector tube is calibrated with n-Heptane.

Measuring range	0.015 to 0.03 %	0.03 to 0.6 %	0.6 to 1.2 %
Number of pump strokes	2 (200 mL)	1 (100 mL)	1/2 (50 mL)
Correction factor	1/2	1	2
Sampling time	2 min	1 min	30 sec

Detecting limit : 0.003 % (2 pump strokes)
Colour change : Yellowish brown → Greenish brown
Operating conditions : Temperature 0 to 40 °C (32 to 104 °F) correction not used
Relative humidity 0 to 90 % correction not used
Relative standard deviation : 10 % (for 0.03 to 0.1 %), 5 % (for 0.1 to 0.6 %)
Tube quantity and number of tests per box : 10 tubes for 10 tests
Shelf life : 36 months

Reaction principle

$$CnHm + Cr^{6+} + H_2SO_4 \rightarrow Cr^{3+}$$

Possible coexisting substances and their interferences

Substance	Concentration	Interference	Changes colour by itself to
Acetylene	≧ 3 %		Blackish brown (whole layer)
Propane	≧ 0.2 %		
Aromatic hydrocarbons	≧ 500 ppm	+	Greenish brown
Alcohols, Esters, Ethers		+	
Halogenated hydrocarbons	≧ 5000 ppm	+	
Hydrogen sulphide	≧ 500 ppm	+	
Sulphur dioxide	≧ 500 ppm	+	Green

Other substances measurable with this detector tube

Substance	Correction	No. of pump strokes	Measuring range
Heptane	Factor : 2	1/2	0.6 to 1.2 %
	Factor : 1.0	1	0.03 to 0.6 %
	Factor : 0.5	2	0.015 to 0.03 %
Isooctane	Factor : 0.9	1	0.027 to 0.54 %
Octane	Factor : 1.2	1	0.036 to 0.72 %

Calibration gas generation

Static gas dilution method