HEPTANE



1. PERFORMANCE

1) Measuring range 100-2,000 ppmNumber of pump strokes $1(100\text{m}\ell)$

2) Sampling time : 1.5 minutes/1 pump stroke

3) Detectable limit : 15 ppm4) Shelf life : 2 years5) Operating temperature $: 0 \sim 40 \text{ °C}$

6) Temperature compensation: Necessary (See "TEMPERATURE CORRECTION TABLE")

7) Reading : Graduations printed on the tube are calibrated by Hexane at 1 pump stroke and

Heptane concentration is determined by using a conversion chart at 3 pump strokes.

8) Colour change : Orange → Yellowish green

2. RELATIVE STANDARD DEVIATION

RSD-low: 10% RSD-mid.: 10% RSD-high: 5%

3. CHEMICAL REACTION

Chromium oxide is reduced.

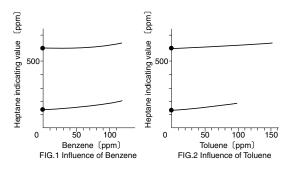
 $CH_3 (CH_2)_5 CH_3 + Cr^{6+} + H_2 SO_4 \rightarrow Cr^{3+}$

4. CALIBRATION OF THE TUBE

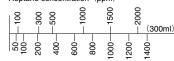
GAS CHROMATOGRAPHY

5. INTERFERENCE AND CROSS SENSITIVITY

Substance		Interference	ppm	Coexistence	
Alcohols		Similar stain is produced.	6%		
Ketones		"	"	"	
Esters		"	"	"	
Aromatic hydrocarbons	FIG.1,2	"		The bottom of the discoloured layer is stained to Black and higher readings are given.	
Paraffin hydrocarbons (more than C ₃)		"		Higher readings are given.	



Heptane concentration (ppm)



No.113SB Tube reading (ppm

TEMPERATURE CORRECTION TABLE

Scale	True Concentration (ppm)						
Readings (ppm)	0°C (32°F)	10℃ (50°F)	20°C (68°F)	(86°F)	40 °C (104 °F)		
2,000	_	_	2,000	1,680	1,460		
1,600	_	2,000	1,600	1,380	1,200		
1,200	2,000	1,160	1,200	1,040	920		
800	1,200	940	800	720	660		
400	520	460	400	360	320		
200	260	230	200	180	160		
100	100	100	100	100	100		