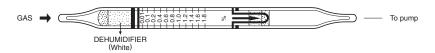
ISOPROPYL ALCOHOL



1. PERFORMANCE

1) Measuring range 0.05-2.5%Number of pump strokes $1(100 \text{m} \ell)$

2) Sampling time : 1.5 minutes/1 pump stroke

3) Detectable limit : 100 ppm4) Shelf life : 3 years5) Operating temperature $: 0 \sim 40 \,^{\circ}\text{C}$

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

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

and Isopropyl alcohol is determined by using a conversion chart.

8) Colour change : Orange → Dark brown

2. RELATIVE STANDARD DEVIATION

RSD-low: 15% RSD-mid.: 15% RSD-high: 5%

3. CHEMICAL REACTION

Chromium oxide is reduced.

 $CH_3CH(OH)CH_3 + Cr^{6+} + H_2SO_4 \rightarrow Cr^{3+}$

4. CALIBRATION OF THE TUBE

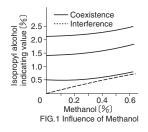
GAS CHROMATOGRAPHY

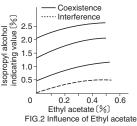
5. INTERFERENCE AND CROSS SENSITIVITY

Substance		Interference	%	Coexistence	
Alcohols	FIG.1	Similar stain is produced.		Higher readings are given.	
Esters	FIG.2	"		"	
Ketones		"		"	
Aromatic hydrocarbons		"		"	
Aliphatic hydrocarbons		Whole reagent is discoloured to Pale brown.	0.5	"	

(NOTE)

Methanol and Ethyl acetate have the same sensitivity as Isopropyl alcohol. Methyl ethyl ketone has 3/4 sensitivity of Isopropyl alcohol.





TEMPERATURE CORRECTION TABLE

Conversion Value (%)		Corrected Concentration (ppm)						
		0 °C (32 °F)	10 °C (50 °F)	20 °C (68 °F)	30 ℃ (86 °F)	40 °C (104 °F)		
2.5	5	-	_	2.50	2.10	2.00		
2.0)	_	-	2.00	1.70	1.62		
1.5	5	_	-	1.50	1.28	1.21		
1.0)	_	1.43	1.00	0.85	0.80		
0.5	5	1.00	0.62	0.50	0.42	0.38		
0.	1	0.16	0.14	0.10	0.09	0.08		
0.0	5	0.09	0.06	0.05	0.04	0.03		