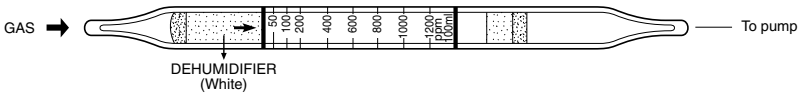
Tube No.
150U

ISOPROPYL ALCOHOL



1. PERFORMANCE

1) Measuring range	: 50-1,200 ppm	20-480 ppm
Number of pump strokes	1 (100mℓ)	2 (200mℓ)
2) Sampling time	: 1.5 minutes/1 pump stroke	
3) Detectable limit	: 10 ppm (100mℓ)	
4) Shelf life	: 2 years	
5) Operating temperature	: 10 ~ 40℃	
6) Temperature compensation	: Necessary (See "TEMPERATURE CORRECTION TABLE")	
7) Reading	: Direct reading from the scale calibrated by 1 pump stroke.	
8) Colour change	: Yellow → Pale blue	

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

Potassium dichromate 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.
Ethers	〃	〃
Paraffin hydrocarbons (more than C_3)	Whole reagent is discoloured to Brown.	〃
Aromatic hydrocarbons	〃	〃
Esters	〃	〃
Ketones	〃	〃
Halogenated hydrocarbons FIG.2	〃	〃

(NOTE)

In case of 2 pump strokes, following formula is available for the actual concentration.

Actual concentration = 2/5 × Temperature corrected value

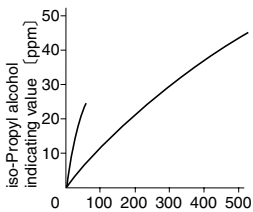


FIG.1 Influence of Ethanol

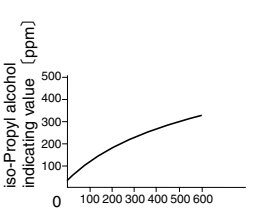


FIG.2 Influence of 1,1,1-Trichloroethane

TEMPERATURE CORRECTION TABLE

Scale Readings (ppm)	True Concentration (ppm)			
	10℃ (50° F)	20℃ (68° F)	30℃ (86° F)	40℃ (104° F)
1200	1680	1200	830	530
1000	1380	1000	690	430
800	1070	800	550	330
600	780	600	400	240
400	1500	400	250	150
200	240	200	130	70
100	120	100	65	45
40	40	40	30	20