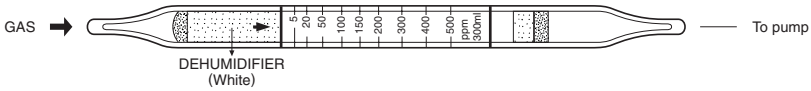
Tube No.
190U©

1-BUTANOL



1. PERFORMANCE

1) Measuring range : 5-100 ppm
   Number of pump strokes 3(300mℓ)
2) Sampling time : 4.5 minutes/3 pump strokes
3) Detectable limit : 2 ppm
4) Shelf life : 2 years
5) Operating temperature : 0～40℃
6) Temperature compensation : Necessary (See"TEMPERATURE CORRECTION TABLE")
7) Reading : Graduations printed on the tube are calibrated by Ethyl cellosolve at 3 pump strokes and 1-Butanol concentration is determined by using a conversion chart.
8) Colour change : Yellow→Pale blue

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

Chromium oxide is reduced.

$CH_3CH_2CH_2CH_2OH + Cr^{6+} + H_2SO_4 \rightarrow Cr^{3+}$

4. CALIBRATION OF THE TUBE

GAS CHROMATOGRAPHY

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	ppm	Interference	Coexistence
Alcohols FIG.1		Similar stain is produced.	Higher readings are given.
Toluene	200	Whole reagent is changed to Pale blue.	〃
Hexane	1,000	The accuracy of readings is not affected.	The accuracy of readings is not affected.
Trichloroethylene	1,000	〃	〃
Ethyl acetate FIG.2	1,000	〃	〃

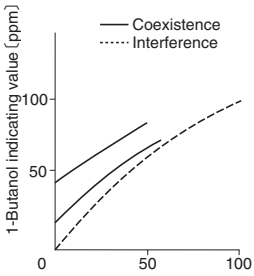


FIG.1 Influence of Ethanol

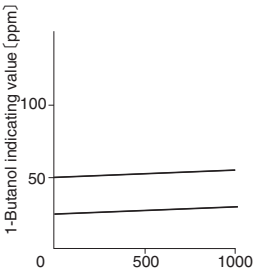
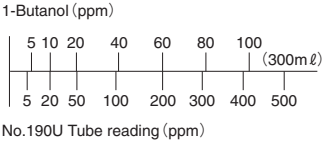


FIG.2 Influence of Ethyl acetate



TEMPERATURE CORRECTION TABLE

Conversion Value (ppm)	Corrected Concentration (ppm)				
	0℃ (32°F)	10℃ (50°F)	20℃ (68°F)	30℃ (86°F)	40℃ (104°F)
100	—	—	100	85	77
80	—	—	80	70	63
60	—	80	60	53	50
40	75	50	40	35	33
20	30	23	20	18	16
10	13	11	10	9	8
5	5	5	5	5	5