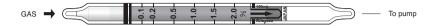
# **TETRAHYDROFURAN**



## 1. PERFORMANCE

: 2.0-5.0 % 0.2-3.0% 1) Measuring range Number of pump strokes  $1/2(50 \text{m} \ell)$ 1(100ml) 2) Sampling time : 1.5 minutes/1 pump stroke

3) Detectable limit 20 ppm 4) Shelf life 3 years 5) Operating temperature  $0 \sim 40 \,^{\circ}\text{C}$ 

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

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

Tetrahydrofuran is determined by using a conversion chart.

8) Colour change : Orange → Dark brown

### 2. RELATIVE STANDARD DEVIATION

RSD-low: 15 % RSD-mid.: 10 % RSD-high: 5 %

## 3. CHEMICAL REACTION

Chromium oxide is reduced.

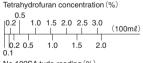
CH<sub>2</sub>-CH<sub>2</sub> 
$$O + Cr^{6+} + H_2SO_4 \rightarrow Cr^{3+}$$
  
CH<sub>2</sub>-CH<sub>2</sub>

## 4. CALIBRATION OF THE TUBE

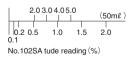
GAS CHROMATOGRAPHY

#### 5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference ppm		Coexistence	
Alcohols	Similar stain is produced.		Higher readings are given.	
Aromatic hydrocarbons FIG.	/		"	
Ketones	"		"	
Esters FIG.	2 //		"	
Halogenated hydrocarbons	Whole reagent is changed to Pale brown.	0.5%	"	

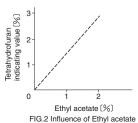


No.102SA tude reading (%)



Tetrahydrofuran concentration (%)

····· Interference 3 indicating value [%] Tetrahydrofuran 2 0 Toluene (%) FIG.1 Influence of Toluene



#### TEMPERATURE CORRECTION TABLE

Converstion	Corrected Concentration (%)				
Value (%)	0 °C (32 °F)	10 °C (50 °F)	20 °C (68 °F)	30 ℃ (86 °F)	40 °C (104 °F)
5.0	6.0	5.3	5.0	4.8	4.5
4.0	4.8	4.3	4.0	3.8	3.6
3.0	3.6	3.2	3.0	2.8	2.7
2.5	3.0	2.7	2.5	2.4	2.3
2.0	2.4	2.1	2.0	1.9	1.8
1.5	1.8	1.6	1.5	1.4	1.4
1.0	1.1	1.1	1.0	1.0	0.9
0.5	0.6	0.5	0.5	0.5	0.5