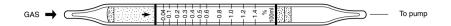
# **DIETHYL ETHER**



## 1. PERFORMANCE

1) Measuring range 0.04-1.4%Number of pump strokes  $1(100 \text{m} \ell)$ 

2) Sampling time : 1.5 minutes/1 pump stroke

3) Detectable limit ∴ 10 ppm 4) Shelf life ∴ 3 years 5) Operating temperature ∴ 0 ~ 40 °C

6) Temperature compensation : Necessary (See "TEMPERATURE CORRECTION TABLE")
7) Reading : Direct reading from the scale calibrated by 1 pump stroke

8) Colour change : Orange → Dark green

## 2. RELATIVE STANDARD DEVIATION

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

## 3. CHEMICAL REACTION

Chromium oxide is reduced.

 $C_2H_5OC_2H_5 + Cr^{6+} + H_2SO_4 \rightarrow Cr^{3+}$ 

#### 4. CALIBRATION OF THE TUBE

GAS CHROMATOGRAPHY

#### 5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	ppm	Coexistence	
Acetylene		3%	Whole reagent is changed to Brown.	
Propane		0.2%	"	
Other organic gases and va- pours except Halogenated hydrocarbons	Similar stain is produced.	50	Higher readings are given.	

#### TEMPERATURE CORRECTION TABLE

Chart	True Concentration (%)					
Readings (%)	0°C (32°F)	10 °C (50° F)	20 °C (68 °F)	30°C (86°F)	40℃ (104°F)	
1.4	1.8	1.6	1.4	1.3	1.1	
1.2	1.5	1.4	1.2	1.1	0.9	
1.0	1.2	1.1	1.0	0.9	0.8	
0.8	0.9	0.9	0.8	0.7	0.6	
0.6	0.6	0.6	0.6	0.6	0.5	
0.5	0.5	0.5	0.5	0.5	0.4	
0.4	0.4	0.4	0.4	0.4	0.3	
0.3	0.3	0.3	0.3	0.3	0.3	