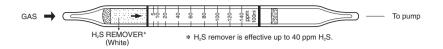
# **METHYL MERCAPTAN**



#### 1. PERFORMANCE

1) Measuring range 5-140 ppmNumber of pump strokes  $1(100 \text{m} \ell)$ 

2) Sampling time : 1.5 minutes/1 pump stroke

3) Detectable limit  $\therefore$  1 ppm 4) Shelf life  $\therefore$  2 years 5) Operating temperature  $\therefore$  0  $\sim$  40  $^{\circ}$ C

6) Temperature compensation : Necessary (0  $\sim$  20 °C) (See "TEMPERATURE CORRECTION TABLE")

7) Reading : Direct reading from the scale calibrated by 1 pump stroke

8) Colour change : White→Reddish yellow

### 2. RELATIVE STANDARD DEVIATION

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

## 3. CHEMICAL REACTION

Methyl mercaptan reacts with Palladium sulphate.

 $CH_3SH + PdSO_4 \rightarrow (CH_3S)_2Pd + H_2SO_4$ 

#### 4. CALIBRATION OF THE TUBE

STANDARD GAS CYLINDER METHOD

## 5. INTERFERENCE AND CROSS SENSITIVITY

Substance	ppm	Interference	ppm	Coexistence
Carbon monoxide	150	Dark grey stain is produced.		
Ethylene	200	"		
Hydrogen sulphide	40	Dark brown stain is produced.		
Acetylene	20	Pale brown stain is produced.		
Ethyl mercaptan	1	Reddish yellow stain is produced.		
Methyl sulphide			1	Lower readings are given.
Chlorine			0.2	"
Nitrogen dioxide			1	"

## (NOTE)

Max. 40 ppm Hydrogen sulphide is eliminated by pretreat reagent.

#### TEMPERATURE CORRECTION TABLE

Tube	Corrected Concentration (ppm)				
Readings (ppm)	0 ℃ (32 °F)	10 ℃ (50 °F)	20-40 °C (68-104 °F)		
140	164	149	140		
120	140	128	120		
100	118	107	100		
80	94	85	80		
60	70	63	60		
40	45	41	40		
20	21	21	20		
10	10	10	10		