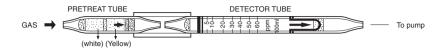
# **CARBONYL SULPHIDE**



## 1. PERFORMANCE

1) Measuring range 5-60 ppmNumber of pump strokes  $1(100 \text{m} \ell)$ 

2) Sampling time : 2 minutes/1 pump stroke

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

6) Temperature compensation : Necessary ( $0 \sim 20^{\circ}$ C) (See "TEMPERATURE CORRECTION TABLE")

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

8) Colour change : Pink → Yellow

## 2. RELATIVE STANDARD DEVIATION

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

# 3. CHEMICAL REACTION

By discomposing with an Oxidizer, Sulphur dioxide is produced. Sulphur dioxide reacts with Alkali and PH indicator is discoloured.

 $\begin{aligned} &COS + CrO_3 + H_2SO_4 \rightarrow SO_2 \\ &SO_2 + 2NaOH \rightarrow Na_2SO_3 + H_2O \end{aligned}$ 

## 4. CALIBRATION OF THE TUBE

STANDARD GAS CYLINDER METHOD

## 5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	%	Coexistence	
Sulphur dioxide			Higher readings are given.	
Hydrogen sulphide			"	
Carbon disulphide			"	
n-Butane		0.1	Lower readings are given.	

#### TEMPERATURE CORRECTION TABLE

Tube	Corrected Concentration (ppm)			
Readings (ppm)	0°C (32°F)	10 °C (50 °F)	20-40 °C (68-104 °F)	
60	85	70	60	
50	75	60	50	
40	60	45	40	
30	45	35	30	
20	30	25	20	
10	15	12	10	
5	7	6	5	