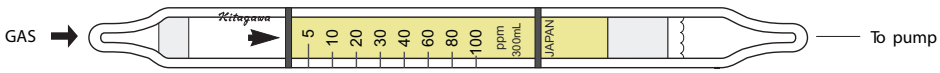
Tube No.
122SM

ETHYLENE OXIDE



1. PERFORMANCE

1) Measuring range	:	5-100ppm
Number of pump strokes		3(300mL)
2) Sampling time	:	4.5 minutes/3 pump strokes
3) Detectable limit	:	3 ppm
4) Shelf life	:	3 years
5) Operating temperature	:	10～40℃
6) Temperature compensation	:	Necessary（See "TEMPERATURE CORRECTION TABLE"）
7) Reading	:	Direct reading from the scale calibrated by 3 pump strokes
8) Colour change	:	Yellow → Pale blue

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

Chromic oxide is reduced.

$$C_2H_4O + Cr^{6+} + H_2SO_4 \rightarrow Cr^{3+}$$

4. CALIBRATION OF THE TUBE

PERMEATION TUBE METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	Coexistence
Alcohols	Similar stain is produced.	Higher readings are given.
Ethers	"	"
Esters	"	"
Ketones	"	"
Aliphatic hydrocarbons (over C_3)	"	"
Aromatic hydrocarbons	"	"
Halogen hydrocarbons	"	"

TEMPERATURE CORRECTION TABLE

Tube Readings (ppm)	True Concentration (ppm)						
	10 ℃ (50°F)	15 ℃ (59°F)	20 ℃ (68°F)	25 ℃ (77°F)	30 ℃ (86°F)	35 ℃ (95°F)	40 ℃ (104°F)
100	70	79	100	122	-	-	-
80	57	64	80	97	120	-	-
60	44	48	60	73	92	115	140
40	31	33	40	46	60	78	92
30	25	26	30	33	40	50	60
20	17	18	20	22	26	28	30
10	9	10	10	10	10	11	11
5	5	5	5	5	5	5	5