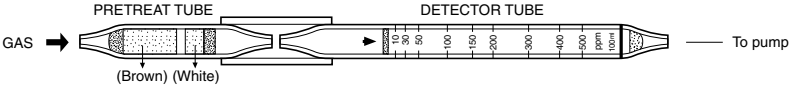
Tube No.
157SA

METHYL BROMIDE



1. PERFORMANCE

1) Measuring range : 10-500ppm
   Number of pump strokes 1 (100mℓ)
2) Sampling time : 2 minutes/1 pump stroke
3) Detectable limit : 1 ppm
4) Shelf life : 3 years (Necessary to store in a refrigerated place ; 0 ~ 10℃)
5) Operating temperature : 0 ~ 40℃
6) Temperature compensation : Necessary (See "TEMPERATURE CORRECTION TABLE")
7) Reading : Direct reading from the scale calibrated by 1 pump stroke
8) Colour change : White → Reddish orange

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

By decomposing with an Oxidizer, Bromine is produced. Bromine reacts with *o*-Toluidine and red Orthoquinone is produced.

$$CH_3Br + I_2O_5 + CrO_3 + H_2SO_4 \rightarrow Br_2$$

4. CALIBRATION OF THE TUBE

GAS CHROMATOGRAPHY

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	ppm	Interference	ppm	Coexistence
Chlorine	1	Similar stain is produced.	1	Higher readings are given.
Bromine	1	〃	1	〃
Nitrogen dioxide	1	〃	1	〃
Dichloromethane	500	〃	500	〃
Chloroform	50	〃	50	〃
Ethylene dibromide	50	〃	50	〃
Trichloroethylene	50	〃	50	〃
Tetrachloroethylene	50	〃	50	〃

TEMPERATURE CORRECTION TABLE

Scale Readings (ppm)	True Concentration (ppm)						
	0℃ (32˚F)	5℃ (41˚F)	10℃ (50˚F)	15℃ (59˚F)	20℃ (68˚F)	30℃ (86˚F)	40℃ (104˚F)
500	—	—	—	620	500	430	390
400	—	—	630	475	400	360	325
300	—	675	430	345	300	280	260
200	580	320	235	210	200	190	175
150	260	185	160	150	150	140	130
100	120	110	100	100	100	95	90
50	50	50	50	50	50	50	50