Tube No.
196S

# N, N-DIMETHYL FORMAMIDE

GAS ➡ To pump

1. PERFORMANCE

1) Measuring range ： 2-30 ppm   1-5 ppm
   Number of pump strokes   1（100mℓ）   2（200mℓ）
2) Sampling time ： 1 minute/1 pump stroke
3) Detectable limit ： 0.2 ppm（200mℓ）
4) Shelf life ： 2 years
5) Operating temperature ： $10 \sim 40\,℃$
6) Temperature compensation ： Necessary（$0 \sim 20\,℃$）(See "TEMPERATURE CORRECTION TABLE"）
7) Reading ： Direct reading from the scale calibrated by 1 pump stroke
8) Colour change ： Pale purple→Pale yellow

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

By reacting with alkali, Amine is produced. Further, PH indicator is discoloured by reacting together with phosphoric acid.

$HCON(CH_3)_2 \rightarrow HN(CH_3)_2$

$2HN(CH_3)_2 + H_3PO_4 \rightarrow [(CH_3)_2NH_2]_2HPO_4$
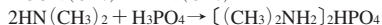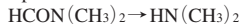
4. CALIBRATION OF THE TUBE

DIFFUSION TUBE METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

Substance		Interference	ppm	Coexistence
Sulphur dioxide	FIG.1	The accuracy of readings is not affected.	200	Lower readings are given.
Carbon dioxide	FIG.2	〃	0.1％	〃
Chlorine		〃		
Ammonia		Similar stain is produced.		Higher readings are given.
Amines		〃	〃	〃
Hydrazine		〃	〃	〃

（NOTE）

When the concectration is below 5 ppm, 2 pump strokes can be used to determine the lower concentration.

Following formula is available for the actual concentration.
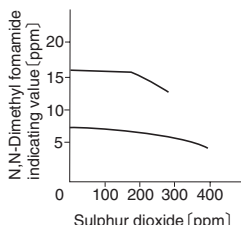
Actual concentration ＝ 1/2 × Temperature corrected value
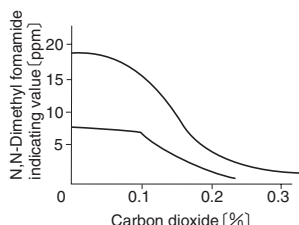
FIG.1 Influence of Sulphur dioxide

FIG.2 Influence of Carbon dioxide

TEMPERATURE CORRECTION TABLE

Tube Readings (ppm)	Corrected Concentration (ppm)		
	10℃ (50˚F)	15℃ (59˚F)	20-40℃ (68-104˚F)
30	81	40	30
25	67	33	25
20	54	27	20
15	40	20	15
10	27	13	10
5	13	7	5
2	5	3	2