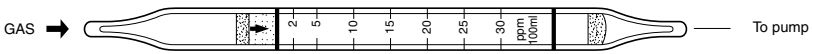
Tube No.
196S

N, N-DIMETHYL FORMAMIDE



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 ~ 40℃
6) Temperature compensation : Necessary(0 ~ 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.

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

$HN(CH_3)_2 + H_3PO_4 \rightarrow [(CH_3)_2NH_2]_2HPO_4$

4. CALIBRATION OF THE TUBE

GAS CHROMATOGRAPHY

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%	〃
Ammonia	Similar stain is produced.		Higher readings are given.
Amines	〃	〃	〃
Hydrazine	〃	〃	〃

(NOTE)

When the concecntration 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

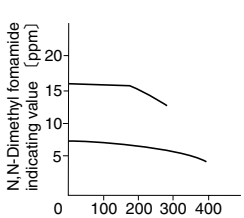


FIG.1 Influence of Sulphur dioxide

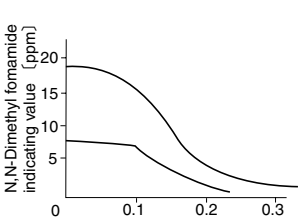


FIG.2 Influence of Carbon dioxide

TEMPERATURE CORRECTION TABLE

Scale Readings (ppm)	True 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