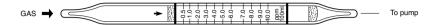
CHLORINE



1. PERFORMANCE

2) Sampling time ∴ 1 minute/1 pump stroke 3) Detectable limit ∴ 0.06 ppm (500mℓ)

4) Shelf life : 2 years 5) Operating temperature : $0 \sim 40^{\circ}$ C

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

7) Colour change : White → Pale orange

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

0-Toluidine is oxidized and Orthoquinone is produced.

$$H_2N - \bigcirc - \bigcirc -NH_2 + CI_2 \longrightarrow CINH_2 = \bigcirc = \bigcirc = NH_2CI_2$$
 $CH_3 \qquad CH_3 \qquad CH_3 \qquad CH_3 \qquad CH_3$

4. CALIBRATION OF THE TUBE

PERMEATION TUBE METHOD

5. INTERFERENCE AND CROSS SENSITIVITY

| Substance | Interference | ppm | Coexistence |
|----------------------|--------------------------------|----------------------|----------------------------|
| Bromine | Pale yellow stain is produced. | 1 | Higher readings are given. |
| Chlorine dioxide | " | 1 | " |
| Nitrogen dioxide | " | Chlorine conc. X 1/5 | " |
| Nitrogen trichloride | " | 5 | " |

(NOTE)

When the concentration is below 2 ppm, 4 or 5 pump strokes can be used to determine the lower concentration. Following formula is available for the actual concentration.

Actual concentration = Reading value \times 1 / Number of strokes