BROMINE



1. PERFORMANCE

1) Measuring range 1-20 ppmNumber of pump strokes $1(100 \text{m} \ell)$

2) Sampling time : 2 minutes/1 pump stroke

3) Detectable limit \vdots 0.1 ppm 4) Shelf life \vdots 2 years 5) Operating temperature \vdots 0 \sim 40 °C

6) Reading : Concentration chart method

7) Colour change : White→Orange

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

o-Toluidine is oxidized and Orthoquinone is produced.

$$Br_2+H_2N$$
 \longrightarrow NH_2 \longrightarrow $BrNH_2$ \longrightarrow NH_2Br CH_3 CH_3 CH_3

Coexistence

Chlorine (ppm) FIG.2 Influence of Chlorine

····· Interference

4. CALIBRATION OF THE TUBE

COLOURIMETRY METHOD

- Coevistence

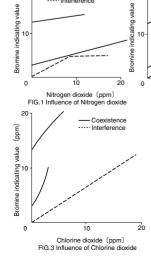
····· Interference

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5. INTERFERENCE AND CROSS SENSITIVITY

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Substance		Interference	ppm	Coexistence	
Nitrogen dioxide	FIG.1	Similar stain is produced.		Higher readings are given.	
Chlorine	FIG.2	"	1	"	
Chlorine dioxide	FIG.3	"		"	



TEMPERATURE CORRECTION TABLE

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	Readings (ppm)	0°C (32°F)	10℃ (50°F)	20°C (68° F)	30°C (86°F)	40 ℃ (104° F)
	20	32	24	20	17	14
	15	22	18	15	12	10
	10	15	13	10	8	6
	5	9	7	5	4	3
	3	6	4	3	2	1.5
	1	3	1.5	1	0.8	0.5

