ACETONE



1. PERFORMANCE

1) Measuring range 0.01-4.0%Number of pump strokes $1(100\text{m}\,\ell)$

2) Sampling time : 1 minute/1 pump stroke

3) Detectable limit : 10 ppm

4) Shelf life : 1 year (Necessary to store in a refrigerated place; $0 \sim 10 \, ^{\circ}\text{C}$)

5) Operating temperature : $0 \sim 40 \,^{\circ}\text{C}$

6) Temperature compensation : Necessary (See "TEMPERATURE CORRECTION TABLE") 7) Reading : Direct reading from the scale calibrated by 1 pump stroke

8) Colour change : Yellow→Pink

2. RELATIVE STANDARD DEVIATION

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

3. CHEMICAL REACTION

Hydrogen chloride of Hydroxylamine hydrochloride is liberated and acidfied, and PH indicator is discoloured. $CH_3COCH_3 + NH_2OH \cdot HCI \rightarrow HCI \rightarrow (CH_3)_2C = NOH + H_2O$

4. CALIBRATION OF THE TUBE

GAS CHROMATOGRAPHY

5. INTERFERENCE AND CROSS SENSITIVITY

Substance	Interference	ppm Coexistence	
Acrolein	Similar stain is produced.	20	Higher readings are given.
Acetaldehyde	"	30	"
Methyl ethyl ketone	"	150	"
Methyl isobutyl ketone	"	400	"

TEMPERATURE CORRECTION TABLE

Scale	True Concentration (%)					
Readings (%)	0°C (32°F)	10 °C (50° F)	20°C (68°F)	30°C (86°F)	40 ℃ (104 ° F)	
4.0	_	-	4.0	3.2	2.7	
3.5	_	-	3.5	2.8	2.3	
3.0	_	4.1	3.0	2.4	2.0	
2.5	4.8	3.7	2.5	2.0	1.7	
2.0	3.9	2.8	2.0	1.6	1.4	
1.5	2.9	2.0	1.5	1.2	1.0	
1.0	1.8	1.3	1.0	0.8	0.7	
0.7	1.1	0.9	0.7	0.6	0.5	
0.5	0.8	0.7	0.5	0.4	0.3	
0.3	0.5	0.4	0.3	0.3	0.2	
0.1	0.16	0.12	0.1	0.08	0.05	