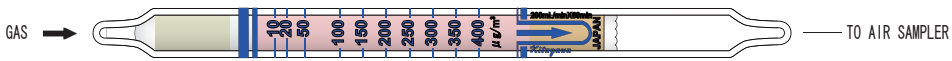
Tube No.
910

# ORGANIC ACID




## 1. PERFORMANCE

| | | Acetic acid | | Formic acid |
|---|---|---|---|---|
| 1) Target gas | | | | |
| 2) Measuring range | : | 10 ～ 400 μg/m³ | 25 ～ 1000 μg/m³ | 20 ～800 μg/m³ |
| 3) Sampling time | : | 200mL/min x 60min | 200mL/min x 30min | 200mL/min x 60min |
| 4) Detectable limit | : | 5 μg/m³(60min sampling) | | 10 μg/m³ |
| 5) Shelf life | : | 3 years | | |
| 6) Operating temperature | : | 5 ～ 35℃ | | |
| 7) Temperature compensation | : | Necessary (See "Temperature correction table") | | |
| 8) Operating humidity | : | 20 ～ 80%R.H. | | |
| 9) Reading | : | Direct reading from the scale calibrated at the sampling of 200mLx60min | | |
| 10) Colour change | : | Pale pink → Pale yellow | | |

＊USE WITH AIR SAMPLER S-20 series.

## 2. RELATIVE STANDARD DEVIATION

RSD-low：10% RSD-mid.：5% RSD-high：5%

## 3. CHEMICAL REACTION

PH indicator is discoloured by reacting with Alkali.

## 4. CALIBRATION OF THE TUBE

PERMEATION TUBE METHOD

## 5. INTERFERENCE AND CROSS SENSITIVITY

| Substance | ppb | Interference | Coexistence |
|---|---|---|---|
| Sulphur dioxide | 10 | Similar stain is produced. | Higher readings are given. |
| Nitrogen dioxide | 60 | Pale orange stain is produced. | The maximum end point of stained layer is indiscernible and higher readings are given. |
| Ammonia | | The accuracy of readings is not affected. | The accuracy of readings is not affected. |
| Ozone | | 〃 | 〃 |
| Formaldehyde | | 〃 | 〃 |
| Acetaldehyde | | 〃 | 〃 |
| Toluene | | 〃 | 〃 |
| Xylene | | 〃 | 〃 |
| Ethyl benzene | | 〃 | 〃 |
| Ethyl acetate | | 〃 | 〃 |

TEMPERATURE CORRECTION TABLE FOR ACETIC ACID

| Tube Readings (μg/m³) | Corrected Concentration (μg/m³) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 5℃ (41°F) | 10℃ (50°F) | 15℃ (59°F) | 20℃ (68°F) | 25℃ (77°F) | 30℃ (86°F) | 35℃ (95°F) |
| 400 | 830 | 650 | 530 | 400 | 365 | 310 | 235 |
| 350 | 750 | 585 | 470 | 350 | 320 | 270 | 205 |
| 300 | 660 | 505 | 405 | 300 | 275 | 230 | 175 |
| 250 | 550 | 430 | 340 | 250 | 225 | 190 | 145 |
| 200 | 450 | 345 | 275 | 200 | 180 | 150 | 115 |
| 150 | 340 | 255 | 205 | 150 | 135 | 110 | 85 |
| 100 | 230 | 175 | 140 | 100 | 90 | 70 | 50 |
| 50 | 120 | 95 | 70 | 50 | 45 | 35 | 30 |
| 20 | 40 | 35 | 30 | 20 | 20 | 15 | 10 |
| 10 | 20 | 15 | 10 | 10 | 10 | 10 | 5 |

TEMPERATURE CORRECTION TABLE FOR FORMIC ACID

| Tube Readings (μg/m³) | Corrected Concentration (μg/m³) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 5℃ (41°F) | 10℃ (50°F) | 15℃ (59°F) | 20℃ (68°F) | 25℃ (77°F) | 30℃ (86°F) | 35℃ (95°F) |
| 400 | 475 | 445 | 425 | 400 | 375 | 340 | 300 |
| 350 | 415 | 395 | 370 | 350 | 335 | 300 | 265 |
| 300 | 355 | 335 | 320 | 300 | 280 | 260 | 230 |
| 250 | 300 | 285 | 265 | 250 | 235 | 220 | 195 |
| 200 | 250 | 235 | 215 | 200 | 190 | 175 | 160 |
| 150 | 195 | 180 | 165 | 150 | 145 | 135 | 120 |
| 100 | 140 | 125 | 110 | 100 | 95 | 90 | 85 |
| 50 | 80 | 70 | 60 | 50 | 50 | 45 | 43 |
| 20 | 35 | 30 | 25 | 20 | 20 | 20 | 18 |
| 10 | 20 | 15 | 10 | 10 | 10 | 10 | 8 |