Formaldehyde HCHO　No.91LL

Scale
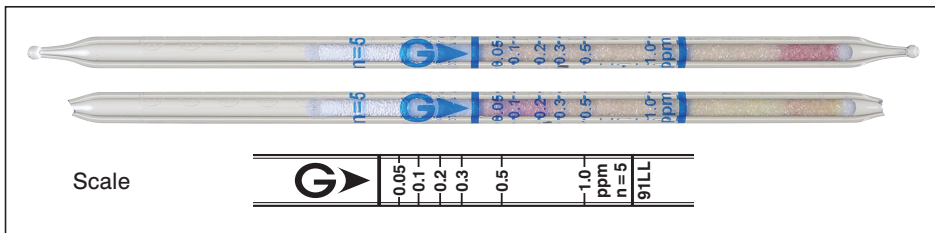
Performance

Measuring range	0.05 to 1.0 ppm
Number of pump strokes	5（500 mL）
Correction factor	1
Sampling time	7.5 min

Detecting limit : 　0.03 ppm（5 pump strokes）

Colour change : 　Yellowish brown → Pale pink

Operating conditions : 　Temperature 10 to 35 ℃ (50 to 95 °F) correction used
　Relative humidity 15 to 90 % correction not used

Relative standard deviation : 　10 %（for 0.05 to 0.3 ppm）, 5 %（for 0.3 to 1.0 ppm）

Tube quantity and number of tests per box : 　10 tubes for 10 tests

Shelf life : 　12 months（in the refrigerator）

Reaction principle

$3HCHO + (NH_2OH)_3H_3PO_4 \rightarrow H_3PO_4$

$H_3PO_4 + Base \rightarrow Phosphate$

Possible coexisting substances and their interferences

Substance	Concentration	Interference	Changes colour by itself to
Ammonia		−	Yellow（Unclear demarction）
Nitrogen dioxide		No	Pale pink
Aldehydes	$\geqq$ 1/3	⎫ + Unclear	⎫ Pale pink
Ketones	$\geqq$ 1/1	⎭ demarcation	⎭（Unclear demarcation）
Toluene	$\leqq$ 10 ppm	No	No

Nitrogen dioxide is trapped in the pretreatment（white）layer. If the pretreatment layer is entirely consumed, the detecting layer turns its colour to pale pink at around zero point. But that does not affect the accuracy of the measurement.

Calibration gas generation

Permeation tube method