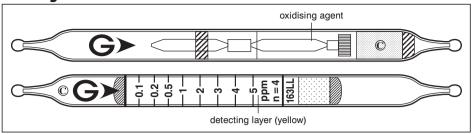
# Ethylene Oxide C2H4O

# No.163LL



#### Performance

When used, these tubes are to be connected.

Measuring range	0.1 to 5 ppm	5 to 10 ppm	
Number of pump strokes	4(400 ml)	2(200 ml)	
Correction factor	1	2	
Sampling time	8 min	4 min	

 $\begin{array}{lll} \mbox{Detecting limit:} & \mbox{0.05 ppm } (4 \mbox{ pump strokes}) \\ \mbox{Colour change:} & \mbox{Yellow} \rightarrow \mbox{Pale orange} \\ \end{array}$ 

Corrections for temperature & humidity: Temperature correction is necessary.

Relative standard deviation: 15 % (for 0.1 to 1 ppm), 10 % (for 1 to 5 ppm)

Shelf life: 1 year (in the refrigerator)

### Reaction principle

C<sub>2</sub>H<sub>4</sub>O → 2HCHO

3HCHO + (NH<sub>2</sub>OH)<sub>3</sub>H<sub>3</sub>PO<sub>4</sub> → H<sub>3</sub>PO<sub>4</sub>

H<sub>3</sub>PO<sub>4</sub> + Base → Phosphate

## Possible coexisting substances and their interferences

Substance	Concentration	Interference	Changes colour by itself to
Acetaldehyde	1.5 ppm	+	Pale orange
Ketones	15 ppm	+	Pale orange
Alcohols	300 ppm	_	No
Formaldehyde	0.5 ppm	+	Pale orange

#### Calibration gas generation

Permeation tube method