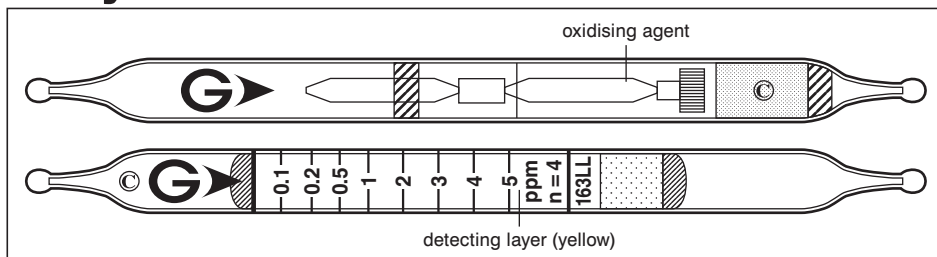


Ethylene Oxide C₂H₄O

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

Detecting limit : 0.05 ppm (4 pump strokes)

Colour change : Yellow → Pale orange

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

Pretreatment tube : $C_2H_4O + Oxidiser \rightarrow 2HCHO$

Detector tube : $3HCHO + (NH_2OH)_3H_3PO_4 \rightarrow H_3PO_4$

$H_3PO_4 + Base \rightarrow Phosphate$

Possible coexisting substances and their interferences

Substance	Concentration	Interference	Changes colour by itself to
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