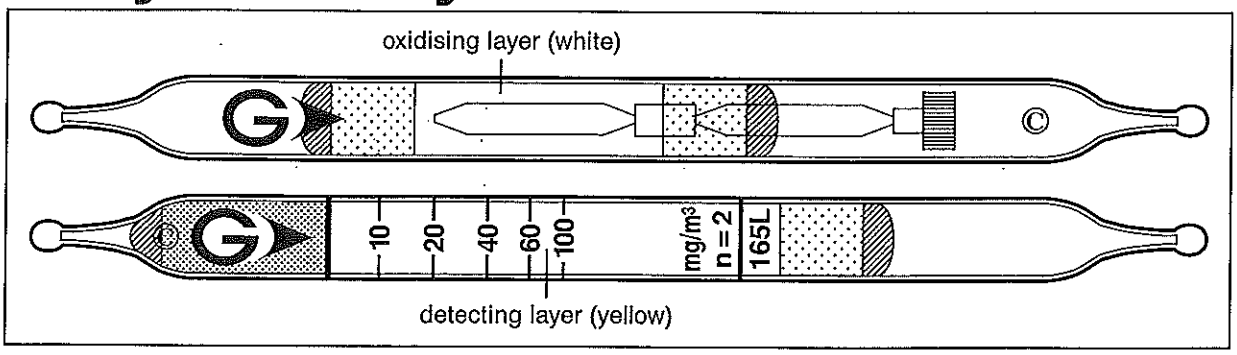
Ethylene Glycol $HOCH_2CH_2OH$ No.165L



Performance

When used, these tubes are to be connected. See page 2-3.

Measuring range	10 to 100 mg/m³
Number of pump strokes	2 (200 ml)
Correction factor	1
Sampling time	6 min

Detecting limit : 2 mg/m³ (2 pump strokes)
Colour change : Yellow → Reddish brown
Corrections for temperature & humidity : Temperature correction is necessary.
Relative standard deviation : 10 % (for 10 to 20 mg/m³), 15 % (for 20 to 100 mg/m³)
Shelf life : 3 years (in the refrigerator)

Reaction principle

Pretreatment tube : $HOCH_2CH_2OH$ + Oxidiser → 2HCHO
Detector tube : $3HCHO + (NH_2OH)_3 \cdot H_3PO_4 \rightarrow 3CH_2NOH + H_3PO_4$
H_3PO_4 + Base → Phosphate

Possible coexisting substances and their interferences (NOTE : Page 2-5)

Substance	Concentration	Interference	Changes colour by itself to
Acid gases		+	Reddish brown
Aldehydes		+	
Ketones		+	
tert-Butyl Mercaptan	≧ 1 mg/m³	+	
Tetrahydrothiophene	≧ 1 mg/m³	+	

Calibration gas generation

Vapour pressure method

TLV-STEL : C100 mg/m³ Explosive range : 3.2 to 33 %