

Detector Tube

Diethyl Ether-100

Part No.: D7086907



Instructions for Use

1 Application

Detection of Diethyl Ether ($C_2H_5-O-C_2H_5$) in air or in technical gases.

2 Detector Tube Sampling Pump

KWIKDRAW Delux Pump, Gas-Tester I/H, Gas-Tester-I or other suitable detector tube pump. Observe respective instructions for use.

3 Measuring Range

100 ppm to 4000 ppm Diethyl Ether at $n=10$ (10 strokes). Range can be extended to 50-2000 ppm ($n=20$) with correction factor of 0.5

4 Chemical Reaction and Color Change

Oxidation of Diethyl Ether by a chromate/sulphuric acid agent.

Color change: Orange → Brown/ green

5 Sampling Procedure

- Check detector tube pump for leakage.
- Break off both the tips of the tubes.
- Insert tube tightly into pump. Arrow on the tube must point towards the pump.
- Perform 10 strokes.
- Read concentration at end of color zone within 2 minutes after sampling.
- Duration of one pump stroke: 25....30 seconds.

6 Ambient Conditions During Sampling

- Correction factor for temperature:

Temperature °C (°F)	0 (32)	10 (50)	20 (68)	30 (86)	40 (104)
Temperature correction factor (TCF)*	1.8	1.2	1	1	1

*Multiply the observed reading by the correction factor (TCF) to obtain the true concentration

- Relative Humidity: Correction not necessary between 10- 90 % RH.
- Pressure compensation: Multiply reading (in ppm) with Pressure Correction factor F.

$$F = \frac{1013 \text{ (mbar)}}{\text{actual atm. pressure (mbar)}} = \frac{760 \text{ (mm Hg)}}{\text{actual atm. pressure (mm Hg)}}$$

7 Interferences and Cross Sensitivities

Aromatic hydrocarbons, Alcohols, Esters, Petroleum hydrocarbons may have positive interference when present with Diethyl Ether.

8 Overall Uncertainty

Up to $\pm 15\%$

9 Storage and Transport

Up to 25°C (77°F) and protect from light.

Expiration date: see back of package.

10 Safety Advice / Disposal

For tubes contents the following indications of danger apply:

Indications of danger H: 311+ H331-H318

Safety advice P: 102-262-302+352

Tubes must be kept away from unauthorized persons. For disposal of tubes as waste, observe the legal regulations applicable in the individual country of use.