

## Technical Data Sheet: TDS 6

### DIF 300 RTU – OZONE

This tube is designed for passively monitoring gaseous molecules of Ozone.



**Description:** Fluorinated ethylene polymer tube fitted with black and white thermoplastic rubber caps. The coloured cap contains the absorbent. A one-micron porosity filter is fitted to the white cap to prevent the ingress of airborne particulate nitrate.

The concentrations of nitrate ions chemically adsorbed are quantitatively determined by Ion Chromatography with reference to a calibration curve derived from the analysis of standard nitrate solutions (U.K.A.S. Accredited Methods).

Suitable for carrying out spatial or localized assessments for ozone in ambient air, workplace or industrial monitoring.

**Tube Dimensions:** 71.0mm length x 11.0mm internal diameter.

**Recommended Exposure Periods:** 2 –4 weeks.

**Uptake Rate:**  $74.4 \times 10^{-6} \text{ m}^3 \text{ hr}^{-1}$ .

**Air Velocity:** Tube fitted with filter therefore negligible influence.

**Storage:** Store in a dark, cool environment preferably between 5-10°C.

**Shelf Life:** 12 weeks from preparation date.

**Desorption Efficiency:**  $d = 0.99$  (determined using N.I.S.T. Standard Analytes).

**Limit of Detection:** 7.6 ppb ( $15.1 \text{ ugm}^{-3}$ ) over a 2-week exposure period.

**Analytical Expanded Measurement Uncertainty:** +/- 4.9 %.

**Working Range:** 6.8 –  $>200 \text{ ugm}^{-3}$ .

**Relevant Standards:** BS EN 13528 Parts 1-3: 2002/3.

**Special Factors:** Potential interference from aerosol particles containing high levels of nitrate.