

Technical Data Sheet: TDS 5

DIF 600 RTU – SULPHUR DIOXIDE

This tube is designed for passively monitoring gaseous airborne Sulphur Dioxide



Description: Fluorinated ethylene polymer tube fitted with purple and white thermoplastic rubber caps. The coloured cap contains the absorbent. A one-micron porosity filter is fitted to prevent the ingress of particulates loaded with sulphur i.e. diesel fumes.

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

Suitable for carrying out spatial or localized assessments for SO₂ in ambient air, workplace or industrial monitoring.

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

Recommended Exposure Periods: 1 –4 weeks.

Uptake Rate: $45.6 \times 10^{-6} \text{ m}^3 \text{ hr}^{-1}$.

Air Velocity: Tube fitted with filter therefore negligible influence.

Storage: Store in a dark, cool environment preferably between 5-10 degrees centigrade.

Shelf life: 12 weeks from preparation date.

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

Limit of Detection: 0.8 ppb (2.2 ugm^{-3}) over a 2 week exposure period.

Analytical Expanded Measurement Uncertainty: +/- 13.3%.

Working Range: 4 – 200 ugm^{-3} .

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

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