

Technical Data Sheet : TDS 3

DIF 900 RTU-RA - COMBINED NITROGEN DIOXIDE (NO₂) AND SULFUR DIOXIDE (SO₂) DIFFUSION TUBE

This tube is designed to simultaneously passively monitor gaseous NO₂ / SO₂



Description : Acrylic Tube fitted with a green and white thermoplastic rubber caps. The green cap contains the absorbent and the white cap is fitted with filter to prevent the ingress of particulates.

Analysis of exposed tubes is carried out by Ion Chromatography

This tube is suitable for carrying out spatial or localized assessments for NO₂ /SO₂ in ambient air. It can be used for co-location projects alongside an automatic analyzer **but it is not recommended for bias comparison measurements**, for this application, separate NO₂ and SO₂ diffusion should be employed

Tube Dimensions : 71.0mm length x 11.0mm internal diameter

Absorbent : 50% Triethanolamine / De-Ionised Water

Uptake Rate : 56.6cm³ hr⁻¹

Air Velocity : Influence of Wind Speed : Sampling Rate does not vary between 1.0 and 4.5 msec⁻¹ (* based on original data)

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

Shelf Life : 12 weeks from preparation date

Desorption Efficiency : d = 0.98 (determined using N.I.S.T. Standard Analytes)

Analytical Expanded Measurement Uncertainty : +/- 6.9%

L.O.D. (NO₂) : 0.42ppb (0.8 ug_m³) over a 2 week exposure period

(SO₂) : 2.44 ppb (6.52 ug_m³) over a 2 week exposure period

Relevant Standards : EN 13528 Parts 1-3 : 2002/3 EN 838 :1996

Special Factors : Potential interference from Nitrous Acid , Peroxy Acetyl Nitrate, and sub-micron sulfur loaded particulates which could increase levels of nitrate and sulfate

For further details please contact our Technical Department

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