

Summary: Sulfite reacts with acidified *p*-rosaniline hydrochloride to form a *p*-rosaniline methylsulfonic acid complex. The absorbance of this violet-colored product is measured at 560 nm.

Interferences: Nitrite concentrations of 2 mg/L or greater will interfere. Add sulfamic acid to remove this interference.

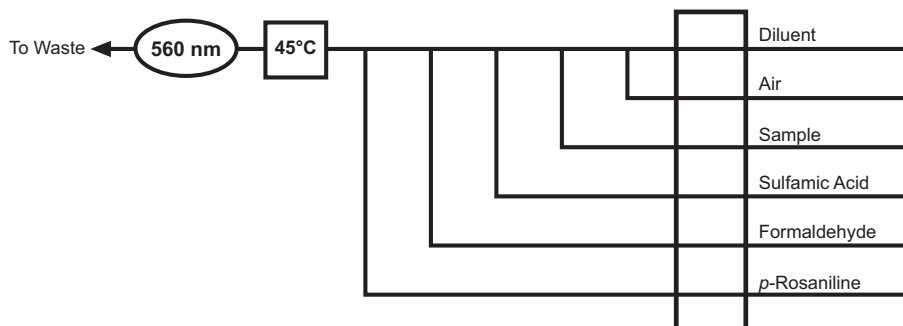
Performance Specifications:

Range:	0.02–30 mg/L
Throughput:	40 samples/hour
Precision:	
5.0 mg/L	<2% RSD
20 mg/L	<1% RSD
Method Detection Limit (MDL):	0.052 mg/L

Chemicals:

Ethylenediaminetetraacetic Acid, Disodium Salt Dihydrate (EDTA), $C_{10}H_{16}N_2Na_2O_8 \cdot 2H_2O$	Phosphoric Acid, concentrated, H_3PO_4
Formaldehyde, 37% w/v, HCHO	<i>p</i> -Rosaniline Hydrochloride, $C_{19}H_{17}N_3 \cdot HCl$
Methanol, CH_3OH	Sodium Metabisulfite, $Na_2S_2O_5$
	Sulfamic Acid, H_2NSO_3
	Triton [®] X-100, 4-(C_8H_{17}) $C_6H_4(OCH_2CH_2)_nOH$, n~10

Basic Flow Diagram:



Selected References: West, P.W.; Gaake, G.C. Fixation of Sulfur Dioxide as Disulfitomercurate(II) and Subsequent Colorimetric Estimation. *Analytical Chemistry* **1956** 28, 1816–1819.

Sulfite in Wastewater. *Technicon Industrial Methods*; Technicon Corporation, Tarrytown, NY, 1973; No. 173-72W.

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