

Summary: Chloride reacts with mercuric thiocyanate, liberating thiocyanate ion by the formation of soluble mercuric chloride. In the presence of ferric ion, free thiocyanate ion forms a highly colored ferric complex, and the absorbance is measured at 480 nm.

Interferences: There are no significant interferences with this method. Filter turbid samples before determination of chloride.

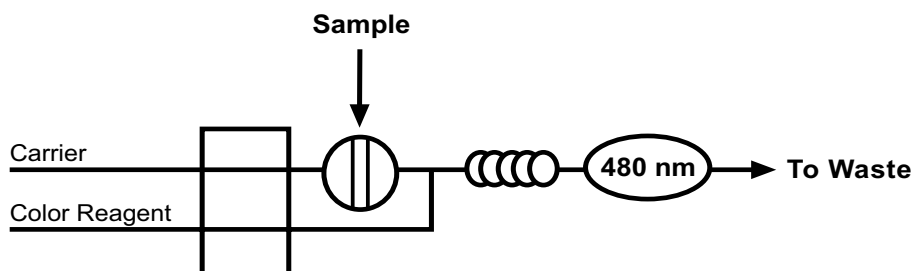
Performance Specifications:

Range:	0.3–200 mg/L
Throughput:	60 samples/hour
Precision:	
1.0 mg/L	<2% RSD
80 mg/L	<1% RSD
Method Detection Limit (MDL):	0.060 mg/L

Chemicals:

Brij®-35, 30% w/v (OI Analytical Part #A21-0110-33)	Methanol, CH ₃ OH
Ferric Nitrate Nonahydrate, Fe(NO ₃) ₃ •9H ₂ O	Nitric Acid, concentrated, HNO ₃
Mercuric Thiocyanate, Hg(SCN) ₂	Sodium Chloride, NaCl
	Thioacetamide, C ₂ H ₅ NS

Basic Flow Diagram:



Selected References: *Methods for Chemical Analysis of Water and Wastewater*; EPA-600/4-79-020; U.S. Environmental Protection Agency, Office of Research and Development, Environmental Monitoring and Support Laboratory: Cincinnati, OH, 1984; Method 325.2.

Standard Methods for the Examination of Water and Wastewater, 20th ed.; American Public Health Association: Washington, D.C., 1998.

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