

Regulatory Methods using Ion Chromatography

Chemical or Contaminant	ASTM	EPA Method	Description
Anions	D4327	300.0 9056	The Determination of Inorganic Anions in Water by Ion Chromatography
	D4327	300.1 9056	The Determination of Inorganic Anions in Drinking Water by Ion Chromatography
	D5794		Standard Guide for Determination of Anions in Cathodic Electro-coat Permeates by Ion Chromatography
	D5827		Test Method for Analysis of Engine Coolant for Chloride and Other Anions by Ion Chromatography
	E1787		Standard Test Method for Anions in Caustic Soda and Caustic Potash (Sodium Hydroxide and Potassium Hydroxide) by Ion Chromatography
	WK 5500		Standard Test Method for Chloride at Trace Levels in Monoethylene Glycol (Ion Chromatography Method)
	E1787		Standard Test Method for Anions in Caustic Soda and Caustic Potash

Chemical or Contaminant	ASTM	EPA Method	Description
Bromate		300.1	The Determination of Inorganic Anions in Drinking Water by Ion Chromatography
		302.0	2-D determination of Bromate by Ion Chromatography
		317	Determination of Inorganic Oxyhalide Disinfection By-Products in Drinking Water Using Ion Chromatography with the Addition of a Postcolumn Reagent for Trace Bromate Analysis
		321.8	Determination of Bromate in Drinking Waters by Ion Chromatography Inductively Coupled Plasma - Mass Spectrometry
		326	Determination of Inorganic Oxyhalide Disinfection By-Products in Drinking Water Using Ion Chromatography Incorporating the Addition of Two Postcolumn Reagents for Trace Bromate Analysis
	6581		Standard Test Method for Bromate, Bromide, Chlorate and Chlorite in Drinking Water by Chemically Suppressed Ion Chromatography
	ISO		
	Pending		Post Column Method using KI
	15061		Water quality - Determination of dissolved bromate - Method by liquid chromatography of ions (ISO 15061:2001); German version EN ISO 15061:2001

Chemical or Contaminant	ASTM	EPA Method	Description
Hexavalent Chromium	D5257	218.6	Determination of Dissolved Hexavalent Chromium in Drinking Water, Groundwater, and Industrial Wastewater Effluents by Ion Chromatography. (IC with AS16)

Chemical or Contaminant	ASTM	EPA Method	Description
Perchlorate		314	IC with AS16
		314.1	Determination of Perchlorate in Drinking Water using Inline column concentration/matrix elimination IC with suppressed conductivity. (IC with Cryptand column)
		314.2	Determination of Perchlorate in Drinking Water using Two-Dimensional Ion Chromatography with Suppressed Conductivity Detection
		331.0	LC-MS/MS using the IonPac AS21 column
		332.0	IC-MS and IC-MS/MS with the IonPac AS16 and AS20 columns
Perchlorate	WK652		Test Method for Perchlorate in Water by <u>Chemically Suppressed Ion Chromatography</u>
Perchlorate – Solid Waste		6850	Perchlorate in Water, Soils and Solid Wastes Using High Performance Liquid Chromatography/Electrospray Ionization/Mass Spectrometry
Perchlorate – Solid Waste		6860	Perchlorate in Water, Soils and Solid Wastes Using Ion Chromatography/Electrospray Ionization/Mass Spectrometry

Chemical or Contaminant	ASTM	EPA Method	Description
Cations	D6910-03:		Standard Test Method for Determination of Dissolved Alkali and Alkaline Earth Cations and Ammonium in Water and Wastewater by Ion Chromatography
	D6919		Standard Test Method for Determination of Dissolved Alkali and Alkaline Earth Cations and Ammonium in Water and Wastewater by Ion Chromatography
Carbohydrate	D5896		Standard Test Method for Carbohydrate Distribution of Cellulosic Materials (Wood Sugars)
Cyanide	D6994		Standard Test Method for Determination of Metal Cyanide Complexes in Wastewater, Surface Water, Groundwater and Drinking Water using Anion Exchange Chromatography with UV Detection

ASTM Standard Designation	Title
UOP 959-98	Ammonium Determination in Aqueous Solutions by Ion Chromatography
UOP 953-97	Sulfate and Thiosulfate in caustic Aqueous Solutions by ION Chromatography
UOP 959-98	Ammonium Determination in Aqueous Solutions by ION Chromatography
E2036	Standard Test Method for Nitrogen Trichloride in Liquid Chlorine by High Performance Liquid Chromatography (HPLC)
E2037	Standard Test Method for Bromine Chloride in Liquid Chlorine by High Performance Liquid Chromatography (HPLC)

D6591	Standard Test Method for Determination of Aromatic Hydrocarbon Types in Middle Distillates-High Performance Liquid Chromatography Method with Refractive Index Detection
D5794	Standard Guide for Determination of Anions in Cathodic Electrocoat Permeates by Ion Chromatography
D5827	Test Method for Analysis of Engine Coolant for Chloride and Other Anions by Ion Chromatography
D5896	Standard Test Method for Carbohydrate Distribution of Cellulosic Materials (Wood Sugars)
E1787	Standard Test Method for Anions in Caustic Soda and Caustic Potash (Sodium Hydroxide and Potassium Hydroxide) by Ion Chromatography
WK652	Test Method for Perchlorate in Water by Chemically Suppressed Ion Chromatography

Chemical or Contaminant	ISO	AWWA	Description
Anions	10304-01	4110 B	Water quality– Determination of dissolved fluoride, chloride, nitrite, orthophosphate, bromide, nitrate and sulfate ions, using liquid chromatography of ions– Part 1 Method for water with low contamination
	10304-02		Determination of dissolved anions by liquid chromatography of ions Part 2: Determination of bromide, chloride, nitrate, nitrite, orthophosphate and sulfate in waste water.
	10304-03		Water quality – Determination of dissolved anions by liquid chromatography of ions – Part 3: Determination of chromate, iodide, sulfite, thiocyanate and thiosulfate.
	10304-04		Water quality – Determination of dissolved anions by liquid chromatography of ions – Part 4: Determination of chlorate, chloride and chlorite in water with low contamination.
	NIOSH	OSHA	
Organic acids	7903		
Chlorine Dioxide		202	Determination of Chlorine Dioxide in Workplace Atmospheres (#182 = nitrogen dioxide; #104 = sulfur dioxide)
Cations	14911		Determination of dissolved Li+, Na+, NH4+, K+, Mn2+, Ca2+, Mg2+, Sr2+ and Ba2+ using ion chromatography - Method for water and waste water (ISO 14911:1998);
Cyanide	DIN 38405 – 7:		Bestimmung von Cyaniden in gering belastetem Wasser mit der Ionenchromatographie oder potentiometrischen Titration (by IC and Titration following acid digestion for total cyanide)