

	Standard reference	Unit	Quantification limit (for 10 mm cuvette)	Measurement range		Sample matrix
				10 mm cuvette	50 mm cuvette	
Alkalinity	not standardized	mg/l CaCO <sub>3</sub>	2,7	10 - 400		water, wastewater
Aluminium, soluble	based on APHA 3500-Al and DIN ISO 10566	mg/l Al	0,02	0.05 - 2		water, wastewater
Ammonium	DIN EN ISO 11732	mg/l NH <sub>4</sub> -N	0,05	0.1 - 50	-	water, wastewater, soil extracts
Ammonium WR	DIN EN ISO 11732	mg/l NH <sub>4</sub> -N	0,01	0.02 - 20	-	water, wastewater, soil extracts
Ammonium Kj (WR)	DIN EN ISO 11732	mg/l NH <sub>4</sub> -N	0,1	0.2 - 20	-	Kjeldahl digests
Borate	based on DIN 38405-17	mg/l B	0,05	0.2 - 10		water, soil extracts
Calcium	not standardized	mg/l Ca	0,09	0.2 - 500		water, wastewater
Chloride	DIN EN ISO 15682	mg/l Cl	0,4	1 - 700		water, wastewater, soil extracts
Chloride with dialysis	DIN EN ISO 15682	mg/l Cl	5	10 - 1000		water, wastewater, soil extracts, food extracts
Chloride with HS-dialysis	DIN EN ISO 15682	mg/l Cl	0,5	1 - 30		water, wastewater, soil extracts, food extracts
Chlorine, free	based on DIN EN ISO 7393-2	mg/l Cl <sub>2</sub>	0,1	0.2 - 5		water
Chlorine, total	based on DIN EN ISO 7393-2	mg/l Cl <sub>2</sub>	0,1	0.2 - 5		water
Chromium (VI)	DIN EN ISO 23913	mg/l Cr	0,005	0.02 - 10	0.005 - 0.1	water
Cyanide, dissolved	DIN EN ISO 14403-1	mg/l CN	0,005	0.01 - 5	0.005 - 0.1	water, wastewater, soil extracts, distilled samples
Cyanide, free	DIN EN ISO 14403-1	mg/l CN	0,0005	-	0.001 - 1	water, wastewater, soil extracts
Cyanide, total	DIN EN ISO 14403-1	mg/l CN	0,0005	-	0.001 - 1	water, wastewater, soil extracts

	Standard reference	Unit	Quantification limit (for 10 mm cuvette)	Measurement range		Sample matrix
				10 mm cuvette	50 mm cuvette	
Formaldehyde, dissolved	based on DIN EN 120	mg/l HCHO	0,02	0.05 - 25		water, absorption solution
Hydrazine	based on DIN 38413-1	mg/l	0,003	0.01 - 1		water, power plant process liquids
Iron, total	based on DIN 38406-1	mg/l Fe (III)	0,006	0.05 - 20	0.005 - 0.1	water, wastewater
Iron (II)	based on DIN 38406-1	mg/l Fe (II)	0,004	0.05 - 20	0.005 - 0.1	water, wastewater
Magnesium	not standardized	mg/l Mg	0,02	0.05 - 10		water, wastewater, soil extracts
Magnesium (high measurement range)	not standardized	mg/l Mg	0,2	0.5 - 400		water, wastewater, soil extracts
Manganese, dissolved	not standardized	mg/l Mn	0,005	0.025 - 10	0.005 - 0.1	water
Nitrate	DIN EN ISO 13395	mg/l NO <sub>3</sub> -N	0,003	0.02 - 15	0.005 - 0.1	water, wastewater, soil extracts
Nitrate with dialysis	DIN EN ISO 13395	mg/l NO <sub>3</sub> -N	0,04	0.2 - 100		water, wastewater, soil extracts, food extracts
Nitrate with HS-dialysis	DIN EN ISO 13395	mg/l NO <sub>3</sub> -N	0,01	0.05 - 10		water, wastewater, soil extracts, food extracts
Nitrate in meat	based on official collection of analytical procedures according to § 35 LMBG (BVL L 07.00-12)	mg/l NaNO <sub>3</sub>	0,15	1 - 20		meat extracts
Nitrate in milk (with dialysis)	DIN EN ISO 14673-3	mg/l NO <sub>3</sub>	0,08	0.2 - 1000		milk and cheese extracts
Nitrite	DIN EN ISO 13395	mg/l NO <sub>2</sub> -N	0,002	0.01 - 10	0.0015 - 0.3	water, wastewater, soil extracts
Nitrite with dialysis	DIN EN ISO 13395	mg/l NO <sub>2</sub> -N	0,02	0.2 - 100		water, wastewater, soil extracts, food extracts

	Standard reference	Unit	Quantification limit (for 10 mm cuvette)	Measurement range		Sample matrix
				10 mm cuvette	50 mm cuvette	
Nitrite with HS-dialysis	DIN EN ISO 13395	mg/l NO <sub>2</sub> -N	0,01	0.05 - 10		water, wastewater, soil extracts, food extracts
Nitrite in meat	based on official collection of analytical procedures according to § 35 LMBG (BVL L 07.00-12)	mg/l NaNO <sub>2</sub>	0,015	0.5 - 10		meat extracts
Nitrite in milk (with dialysis)	DIN EN ISO 14673-3	mg/l NO <sub>2</sub>	0,01	0.025 - 100		milk and cheese extracts
Organic acids	not standardized	g/l organic acids	0,01	0.02 - 10		water, wastewater
Orthophosphate (SnCl <sub>2</sub> )	DIN EN ISO 15681-1	mg/l PO <sub>4</sub> -P	0,006	0.02 - 20	0.005 - 0.1	water, wastewater, soil extracts
Orthophosphate (Asc)	DIN EN ISO 15681-1	mg/l PO <sub>4</sub> -P	0,02	0.05 - 10		water, wastewater, soil extracts
Orthophosphat (Asc + thermal reactor)	DIN EN ISO 15681-1	mg/l PO <sub>4</sub> -P	0,006	0.01 - 50		water, wastewater, soil extracts
Orthophosphate (with enrichment)	DIN EN ISO 15681-1	µg/l PO <sub>4</sub> -P	0,5	1 - 100		water
Phenol index (extraction)	DIN EN ISO 14402	mg/l phenol	0,003	0.01 - 10	0.005 - 0.1	water, wastewater
Phenol index (after distillation)	DIN EN ISO 14402-4	mg/l phenol	0,014	0.1 - 25	0.05 - 0.4	distillates
Silicate	DIN EN ISO 16264	mg/l SiO <sub>2</sub>	0,01	0.2 - 50		water, wastewater
Silicate (with thermal reactor)	DIN EN ISO 16264	mg/l SiO <sub>2</sub>	0,003	0.025 - 50		water, wastewater
Sulfate (MTB-method)	based on ISO 22743	mg/l SO <sub>4</sub>	0,9	5 - 200		water, wastewater
Sulfate (turbidimetric)	not standardized	mg/l SO <sub>4</sub>	0,6	5 - 200		water, wastewater, soil extracts
Sulfide, dissolved	based on DIN 38405-27 Annex B	mg/l S	0,02	0.1 - 10		water, wastewater

	Standard reference	Unit	Quantification limit (for 10 mm cuvette)	Measurement range		Sample matrix
				10 mm cuvette	50 mm cuvette	
Sulfide, dissolved (enrichment + gas diffusion)	based on DIN 38405-27 Annex B	mg/l S	0,01	0.02 - 10		water, wastewater, landfill leachate
Sulfite, free	not standardized	mg/l FSO <sub>2</sub>	1	2 - 150		Beverages
Sulfite, free (with thermal reactor)	not standardized	mg/l FSO <sub>2</sub>	0,3	2 - 140		Beverages
Sulfite, total	not standardized	mg/l TSO <sub>2</sub>	1,6	10 - 500		Beverages
Sulfite, total (thermal reactor)	not standardized	mg/l TSO <sub>2</sub>	2	-	10 - 500	Beverages
Tensides, anionic	based on EN 903	mg/l MBAS	0,02	0.02 - 5		water, wastewater
Total nitrogen	ISO 29441	mg/l TN	0,03	0.05 - 20		water, wastewater, soil extracts
Total phosphorus	DIN EN ISO 15681-1	mg/l TP	0,05	0.1 - 20	-	water, wastewater, soil extracts
Total phosphorus with enrichment	DIN EN ISO 15681-1	µg/l TP	5	10 - 500	-	water
Urea	not standardized	g/l N	0,005	0.01 - 10		liquid fertilizer, fertilizer extracts