

## APHA AWWA WEF Standard Methods



Environmental & Water Standards

Reagents and Standards as per  
Standard Methods for the  
Examination of Water and  
Wastewater 21st Edition 2005,  
APHA AWWA WEF



**Standard Methods for the Examination of Water and Wastewater  
21st Edition 2005, APHA AWWA WEF**

**Reagent Water referenced in APHA, AWWA & WEF**

Chapter	Product No.	Description	Pack Size
1080.B.1	ISTOC1154	USP Reagent Water	1L

**Analytical Volumetric Solutions referenced in APHA, AWWA & WEF**

Chapter	Product No.	Description	Pack Size
2310.B.3c	S20101	Analytical Volumetric Solution Sodium Hydroxide 0.1N, 0.1M	1L
2310.B.3d	S20021	Analytical Volumetric Solution Sodium Hydroxide 0.02N, 0.02M	1L
2310.B.3h	IPT10W	Indicator Phenolphthalein Alcoholic Solution 1.0%	2.5L
2310.B.3i	T20101	Analytical Volumetric Solution Sodium Thiosulphate 0.1N, 0.1M	1L
2320.B.3b	SU20051	Analytical Volumetric Solution Sulphuric Acid 0.1N, 0.05M	1L
2320.B.3b	H20101	Analytical Volumetric Solution Hydrochloric Acid 0.1N, 0.1M	1L
2320.B.3c	SU20011	Analytical Volumetric Solution Sulphuric Acid 0.02N, 0.01M	1L
2320.B.3c	H20021	Analytical Volumetric Solution Hydrochloric Acid 0.02N, 0.02M	1L
2320.B.3d	BRCG1501	Bromocresol Green, 1% Solution	100ml
2320.B.3e	1012602	European Pharmacopoeia Reagent Bromocresol Green - Methyl Red Mixed Indicator	100ml
2340.C.2d	ED20011	Analytical Volumetric Solution EDTA (DiSodium salt) 0.02N, 0.01M	1L
2350.B.3e	ST1001	Starch Solution 1%	1L
2350.B.3g	SH5WV1	Sodium Hypochlorite 5% w/v	1L

## Analytical Volumetric Solutions referenced in APHA, AWWA & WEF

Chapter	Product No.	Description	Pack Size
3500-K.C.3d	S26001	Analytical Volumetric Solution Sodium Hydroxide 6M, 6N	1L
3500-K.C.3e	ISTOC1154	USP Reagent Water	1L
4500-C1.B.2c	T20101	Analytical Volumetric Solution Sodium Thiosulphate 0.1N, 0.1M	1L
4500-C1.B.2c	ST1001	Starch Solution 1%	1L
4500-C1.B.2d	T20011	Analytical Volumetric Solution Sodium Thiosulphate 0.01N, 0.01M	1L
4500-C1.B.2f	I2005F	Analytical Volumetric Solution Iodine 0.1N, 0.05M	1L
4500-C1 <sup>-</sup> .B.3a	PCS5	Indicator Solution Potassium chromate, 5%	500ml
4500-C1 <sup>-</sup> .B.3b	N20014W	Analytical Volumetric Solution Silver Nitrate 0.0141N, 0.0141M	2.5L
4500-C1 <sup>-</sup> .B.3d	IPT10F	Indicator Phenolphthalein 1% Phenolphthalein Solution	1L
4500-C1 <sup>-</sup> .B.3d	S21001	Analytical Volumetric Solution Sodium Hydroxide 1.0N, 1.0M	1L
4500-C1 <sup>-</sup> .B.3d	SU20501	Analytical Volumetric Solution Sulphuric Acid 1.0N, 0.5M	1L
4500-H <sup>+</sup> .B.3d	S20101	Analytical Volumetric Solution Sodium Hydroxide 0.1N, 0.1M	1L
4500-H <sup>+</sup> .B.3d	H20101	Analytical Volumetric Solution Hydrochloric Acid 0.1N, 0.1M	1L
4500-H <sup>+</sup> .B.3d	H25001	Analytical Volumetric Solution Hydrochloric Acid 5N, 5M	1L
4500-O.C.2d	1085103	European Pharmacopoeia Reagent Starch Solution	100ml
4500-O.C.2f	SU23005	Analytical Volumetric Solution Sulphuric Acid 3.0M, 6.0N	5L
4500-O.D.2a	1070902	European Pharmacopoeia Reagent Potassium Permanganate Solution	1L
4500-P.D.3c	AMBS01	Ammonium Molybdate Solution	100ml
4500-P.D.3d	1085001	European Pharmacopoeia Reagent Stannous Chloride Solution	100ml
4500-S <sup>2-</sup> .F.1a	H26001	Analytical Volumetric Solution Hydrochloric Acid 6.0N, 6.0M	1L
5210.B.3a	S30WW1	Sodium Hydroxide 30% w/w (40% w/v)	1L
5210.B.3c	CACLSS01	Calcium Chloride Stock Solution	1L
5210.B.3i	USP0701	USP Solution Ammonium Chloride TS Conforms to USP 34	100ml
5530.B.3b	M004F	Indicator Solution Methyl Orange, 0.04%	500ml
5530.B.3c	S22501	Analytical Volumetric Solution Sodium Hydroxide 2.5N, 2.5M	1L
6610.B.4c	S20051	Analytical Volumetric Solution Sodium Hydroxide 0.05N, 0.05M	1L

## Kjeldahl Reagents referenced in APHA, AWWA & WEF

Chapter	Product No.	Description	Pack Size
4500-Norg.B.3b	ST841	Kjeldahl Reagent 40% w/v Sodium Hydroxide/8% Sodium Thiosulphate	5L
4500-Norg.B.3d	S26001	Analytical Volumetric Solution Sodium Hydroxide 6M, 6N	1L

## TOC standards referenced in APHA, AWWA & WEF

Chapter	Product No.	Description	Pack Size
5310.B.3a	ISTOC1154	USP Reagent Water	1L

## Standard Methods for the Examination of Water and Wastewater 21st Edition 2005, APHA AWWA WEF Part 2000 Physical and Aggregate Properties, 2120 Colour ASTM Colour Standards

Product No.	Description	Colour	APHA, ACS and ASTM Methods to include the following	Pack Size
ASTMA101	ASTM Colour Standard Sample A1	1	D6045,D1500	100ml
ASTMA105	ASTM Colour Standard Sample A1	1	D6045,D1500	500ml
ASTMA301	ASTM Colour Standard Sample A3	3	D6045,D1500	100ml
ASTMA305	ASTM Colour Standard Sample A4	3	D6045,D1500	500ml
ASTMA501	ASTM Colour Standard Sample A5	5	D6045,D1500	100ml
ASTMA505	ASTM Colour Standard Sample A5	5	D6045,D1500	500ml
ASTMA701	ASTM Colour Standard Sample A7	7	D6045,D1500	100ml
ASTMA705	ASTM Colour Standard Sample A7	7	D6045,D1500	500ml

## Standard Methods for the Examination of Water and Wastewater 21st Edition 2005, APHA AWWA WEF Part 2000 Physical and Aggregate Properties 2120 Colour

### Saybolt Colour Standards

Product No.	Description	Colour	APHA, ACS and ASTM Methods to include the following	Pack Size
SAYP301	Saybolt Colour +30	S+30	D6045	100ml
SAYP305	Saybolt Colour +30	S+30	D6045	500ml
SAYP251	Saybolt Colour +25	S+25	D6045	100ml
SAYP255	Saybolt Colour +25	S+25	D6045	500ml
SAYP191	Saybolt Colour +19	S+19	D6045	100ml
SAYP195	Saybolt Colour +19	S+19	D6045	500ml
SAYP151	Saybolt Colour +15	S+15	D6045	100ml
SAYP155	Saybolt Colour +15	S+15	D6045	500ml
SAYP121	Saybolt Colour +12	S+12	D6045	100ml
SAYP125	Saybolt Colour +12	S+12	D6045	500ml
SAYP01	Saybolt Colour +0	S0	D6045	100ml
SAYP05	Saybolt Colour +0	S0	D6045	500ml
SAYN151	Saybolt Colour -15	S-15	D6045	100ml
SAYN155	Saybolt Colour -15	S-15	D6045	500ml



**Standard Methods for the Examination of Water and Wastewater 21st Edition 2005, APHA AWWA WEF.  
Part 2000 Physical and Aggregate Properties 2120 Colour**

**Platinum-Cobalt Colour Standards\* (Hazen)**

Product No.	Description	Colour	APHA, ACS and ASTM Methods to include the following	Pack Size
HAZ0	Platinum-Cobalt Colour 0	0	D1209	1000ml
HAZ5	Platinum-Cobalt Colour 5	5	D1209	1000ml
HAZ10	Platinum-Cobalt Colour 10	10	D1209	1000ml
HAZ25	Platinum-Cobalt Colour 25	25	D1209	1000ml
HAZ40	Platinum-Cobalt Colour 40	40	D1209	1000ml
HAZ50	Platinum-Cobalt Colour 50	50	D1209	1000ml
HAZ80	Platinum-Cobalt Colour 80	80	D1209	1000ml
HAZ100	Platinum-Cobalt Colour 100	100	D1209	1000ml
HAZ250	Platinum-Cobalt Colour 250	250	D1209	1000ml
HAZ500	Platinum-Cobalt Colour 500	500	D1209	1000ml

\* Standards with intermediate Platinum-Cobalt values are available on request

**Standard Methods for the Examination of Water and Wastewater 21st Edition 2005, APHA AWWA WEF.  
Part 2000 Physical and Aggregate Properties 2120 Colour**

**Gardner Colour Standards\*\***

Product No.	Description	Colour	APHA, ACS and ASTM Methods to include the following	Pack Size
GARD02	Gardner Colour 2	2	D6166	500ml
GARD021	Gardner Colour 2	2	D6166	100ml
GARD04	Gardner Colour 4	4	D6166	500ml
GARD041	Gardner Colour 4	4	D6166	100ml
GARD06	Gardner Colour 6	6	D6166	500ml
GARD061	Gardner Colour 6	6	D6166	100ml
GARD08	Gardner Colour 8	8	D6166	500ml
GARD081	Gardner Colour 8	8	D6166	100ml
GARD10	Gardner Colour 10	10	D6166	500ml
GARD101	Gardner Colour 10	10	D6166	100ml
GARD12	Gardner Colour 12	12	D6166	500ml
GARD121	Gardner Colour 12	12	D6166	100ml
GARD14	Gardner Colour 14	14	D6166	500ml
GARD141	Gardner Colour 14	14	D6166	100ml
GARD16	Gardner Colour 16	16	D6166	500ml
GARD161	Gardner Colour 16	16	D6166	100ml

# Standard Methods for the Examination of Water and Wastewater 21st Edition 2005, APHA AWWA WEF Part 2000 Physical and Aggregate Properties 2130 Turbidity Turbidity Standards

Description	Product No. Ratio 100ml	Product No. Ratio 500ml	Product No. Non Ratio 100ml	Product No. Non Ratio 500ml
Turbidity Std 0.0 NTU	CRSR-0-100	CRSR-0-500	CRS-0.0-100	CRS-0.0-500
Turbidity Std 0.1 NTU	CRSR-0.1-100	CRSR-0.1-500	CRS-0.1-100	CRS-0.1-500
Turbidity Std 0.2 NTU	CRSR-0.2-100	CRSR-0.2-500	CRS-0.2-100	CRS-0.2-500
Turbidity Std 0.4 NTU	CRSR-0.4-100	CRSR-0.4-500	CRS-0.4-100	CRS-0.4-500
Turbidity Std 0.5 NTU	CRSR-0.5-100	CRSR-0.5-500	CRS-0.5-100	CRS-0.5-500
Turbidity Std 1 NTU	CRSR-1-100	CRSR-1-500	CRS-1-100	CRS-1-500
Turbidity Std 2 NTU	CRSR-2-100	CRSR-2-500	CRS-2-100	CRS-2-500
Turbidity Std 4 NTU	CRSR-4-100	CRSR-4-500	CRS-4-100	CRS-4-500
Turbidity Std 5 NTU	CRSR-5-100	CRSR-5-100	CRS-5-100	CRS-5-500
Turbidity Std 10 NTU	CRSR-10-100	CRSR-10-500	CRS-10-100	CRS-10-500
Turbidity Std 20 NTU	CRSR-20-100	CRSR-20-500	CRS-20-100	CRS-20-500
Turbidity Std 40 NTU	CRSR-40-100	CRSR-40-500	CRS-40-100	CRS-40-500
Turbidity Std 50 NTU	CRSR-50-100	CRSR-50-100	CRS-50-100	CRS-50-500
Turbidity Std 60 NTU	CRSR-60-100	CRSR-60-500	CRS-60-100	CRS-60-500
Turbidity Std 90 NTU	CRSR-90-100	CRSR-90-500	CRS-90-100	CRS-90-500
Turbidity Std 100 NTU	CRSR-100-100	CRSR-100-500	CRS-100-100	CRS-100-500
Turbidity Std 200 NTU	CRSR-200-100	CRSR-200-500	CRS-200-100	CRS-200-500
Turbidity Std 400 NTU	CRSR-400-100	CRSR-400-500	CRS-400-100	CRS-400-500
Turbidity Std 500 NTU	CRSR-500-100	CRSR-500-500	CRS-500-100	CRS-500-500
Turbidity Std 800 NTU	CRSR-800-100	CRSR-800-500	CRS-800-100	CRS-800-500
Turbidity Std 1000NTU	CRSR-1000-100	CRSR-1000-500	CRS-1000-100	CRS-1000-500
Turbidity Std 4000 NTU	CRSR-4000-100	CRSR-4000-500	CRS-4000-100	CRS-4000-500

# Standard Methods for the Examination of Water and Wastewater 21st Edition 2005, APHA AWWA WEF Part 2000 Physical and Aggregate Properties 2350 Oxidation-Reduction Potential Redox Standards

All values quoted are potentials of Platinum Electrode v Ag/AgCl reference (3M KCl)

Value	Product No. 500ml	Product No. 10L	Product No. 10L Bag-In-Box
124mV @ 25° C	RS124	RS12410	RSB12410
200mV @ 25° C	RS200	RS20010	RSB20010
220mV @ 25° C	RS220	RS22010	RSB22010
250mV @ 25° C	RS250	RS25010	RSB25010
300mV @ 25° C	RS300	RS30010	RSB30010
358mV @ 25° C	RS358	RS35810	RSB35810
400mV @ 25° C	RS400	RS40010	RSB40010
465mV @ 25° C	RS465	RS46510	RSB46510
600mV @ 25° C	RS600	RS60010	RSB60010
650mV @ 25° C	RS650	RS65010	RSB65010

## Standard Methods for the Examination of Water and Wastewater 21st Edition 2005, APHA AWWA WEF Part 2000, Physical and Aggregate Properties 2510 Conductivity Conductivity Standards

Product No.	Description	Pack Size
CSKC25	25µS/cm @ 25°C	500ml
CSKC50	50µS/cm @ 25°C	500ml
CSKC84	84µS/cm @ 25°C	500ml
CSKC100	100µS/cm @ 25°C	500ml
CSKCS	147µS/cm @ 25°C	500ml
CSKC150	150µS/cm @ 25°C	500ml
CSKC185	185µS/cm @ 25°C	500ml
CSKC200	200µS/cm @ 25°C	500ml
CSKC250	250µS/cm @ 25°C	500ml
CSKC300	300µS/cm @ 25°C	500ml
CSKC400	400µS/cm @ 25°C	500ml
CSKC500	500µS/cm @ 25°C	500ml
CSKC718	718µS/cm @ 25°C	500ml
CSKC1000	1000µS/cm @ 25°C	500ml
CSKCL	1413µS/cm @ 25°C	500ml
CSKC2M	2000µS/cm @ 25°C	500ml
CSKC2500	2500µS/cm @ 25°C	500ml
CSKC3M	3000µS/cm @ 25°C	500ml
CSKC5M	5,000µS/cm @ 25°C	500ml
CSKC7M	7,000µS/cm @ 25°C	500ml
CSKC10M	10,000µS/cm @ 25°C	500ml
CSKC12880	12,880µS/cm @ 25°C	500ml
CSKC20M	20,000µS/cm @ 25°C	500ml
CSKC30M	30,000µS/cm @ 25°C	500ml
CSKC40M	40,000µS/cm @ 25°C	500ml
CSKC50M	50,000µS/cm @ 25°C	500ml
CSKC60M	60,000µS/cm @ 25°C	500ml
CSKC80M	80,000µS/cm @ 25°C	500ml
CSKC100M	100,000µS/cm @ 25°C	500ml
CSKC111800	111,800µS/cm @ 25°C	500ml
CSKC150M	150,000µS/cm @ 25°C	500ml
CSKC200M	200,000µS/cm @ 25°C	500ml
CSKC300M	300,000µS/cm @ 25°C	500ml
CSKC350M	350,000µS/cm @ 25°C	500ml
CSKC400M	400,000µS/cm @ 25°C	500ml
CSKC450M	450,000µS/cm @ 25°C	500ml
CSKC500M	500,000µS/cm @ 25°C	500ml

# Standard Methods for the Examination of Water and Wastewater 21st Edition 2005, APHA AWWA WEF Part 3000, Metals

## Part 3113 Metals by Electrothermal Atomic Absorption Spectroscopy

Description	Concentration 1,000ppm	Concentration 10,000ppm
Aluminium in 0.5M Nitric Acid	AAALH	
Aluminium in 1M Nitric Acid		AAALM
Antimony in Water	AASBH	AASBM
Arsenic (III) in 1M Hydrochloric Acid	AAASH	AAASM
Arsenic (V) in 1M Nitric Acid	AAAS05H	
Barium in 0.5M Nitric Acid	AABAH	
Barium in 1M Nitric Acid		AABAM
Beryllium in 1M Hydrochloric Acid	AABEH	AABEM
Bismuth in 0.5M Nitric Acid	AABIH	
Bismuth in 1M Nitric Acid		AABIM
Boron in Water	AAB-H	AAB-M
Cadmium in 0.5M Nitric Acid	AACDH	
Cadmium in 1M Nitric Acid		AACDM
Calcium in 0.5M Nitric Acid	AACAH	
Calcium in 1M Nitric Acid		AACAM
Cesium in 1M Nitric Acid	AACSH	AACSM
Chromium in 0.5M Nitric Acid	AACRH	
Chromium in 1M Nitric Acid		AACRM
Cobalt in 0.5M Nitric Acid	AACOH	
Cobalt in 1M Nitric Acid		AACOM
Copper in 0.5M Nitric Acid	AACUH	
Copper in 1M Nitric Acid		AACUM
Gadolinium in 1M Hydrochloric Acid	AAGDH	AAGDM
Gallium in 1M Hydrochloric Acid	AAGAH	AAGAM
Gold in 2M Hydrochloric Acid	AAAUH	AAAUM
Indium in 1M Nitric Acid	AAINH	AAINM
Iridium in 10% Hydrochloric Acid	AAIRH	AAIRM
Iron in 0.5M Nitric Acid	AAFEH	
Iron in 1M Nitric Acid		AAFEM
Lanthanum in 1M Nitric Acid	AALAH	AALAM
Lead in 0.5M Nitric Acid	AAPBH	
Lead in 1M Nitric Acid		AAPBM
Lithium in 0.5M Nitric Acid	AALIH	
Lithium in 1M Nitric Acid		AALIM
Magnesium in 0.5M Nitric Acid	AAMGH	
Magnesium in 1M Nitric Acid		AAMGM
Manganese in 1M HCl	AAMNH	AAMNM
Mercury in 0.5M Nitric Acid	AAHGH	
Mercury in 1M Nitric Acid		AAHGM
Molybdenum in Water	AAMOH	AAMOM
Nickel in 0.5M Nitric Acid	AANIH	



Description	Concentration 1,000ppm	Concentration 10,000ppm
Nickel in 1M Nitric Acid		AANIM
Palladium in 1M Hydrochloric Acid	AAPDH	AAPDM
Phosphorus in Water	AAP-H	AAP-M
Platinum in 1M Hydrochloric Acid	AAPTH	AAPTM
Potassium in 0.5M Nitric Acid	AAK-H	
Potassium in 1M Nitric Acid		AAK-M
Rhodium in 1M Nitric Acid	AARHH	AARHM
Selenium in 0.5M Nitric Acid	AASEH	
Selenium in 1M Nitric Acid		AASEM
Silicon in Water	AASIH	AASIM
Silver in 0.5M Nitric Acid	AAAGH	
Silver in 1M Nitric Acid		AAAGM
Sodium in 0.5M Nitric Acid	AANA H	
Sodium in 1M Nitric Acid		AANAM
Strontium in 0.5M Nitric Acid	AASRH	
Strontium in 1M Nitric Acid		AASRM
Sulphur in Water	AAS-H	AAS-M

# Standard Methods for the Examination of Water and Wastewater 21st Edition 2005, APHA AWWA WEF Part 3000, Metals

## Part 3125 Metals by Inductively Coupled Plasma-Mass Spectrometry

### ICP-MS Standards

Product No.	Starting Material and its Purity %	Matrix	Conc µg/ml	Pack size
<b>Aluminium</b>				
PAL1A2	AL 99.999	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PAL2A2	AL 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PAL2C2	AL 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PAL4A2	AL 99.999	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
PAL2A3	AL 99.999	5% HCl (v/v)	1,000	100ml
PAL2C3	AL 99.999	5% HCl (v/v)	1,000	500ml
PAL4A3	AL 99.999	5% HCl (v/v)	10,000	100ml
<b>Antimony</b>				
PSB1A4	Sb 99.999	1% HF + 5% HNO <sub>3</sub> (v/v)	100	100ml
PSB2A4	Sb 99.999	1% HF + 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PSB2C4	Sb 99.999	1% HF + 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PSB4A4	Sb 99.999	1% HF + 5% HNO <sub>3</sub> (v/v)	10,000	100ml
PSB2A5	Sb 99.999	10% HCl (v/v)	1,000	100ml
PSB2C5	Sb 99.999	10% HCl (v/v)	1,000	500ml
PSB4A5	Sb 99.999	10% HCl (v/v)	10,000	100ml
<b>Arsenic</b>				
PAS1A2	As 99.999	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PAS2A2	As 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PAS2C2	As 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PAS4A2	As 99.999	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
<b>Barium</b>				
PBA1A2	BaCO <sub>3</sub> 99.999	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PBA2A2	BaCO <sub>3</sub> 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PBA2C2	BaCO <sub>3</sub> 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PBA4A2	BaCO <sub>3</sub> 99.999	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
PBA2A3	BaCO <sub>3</sub> 99.999	2% HCl (v/v)	1,000	100ml
PBA2C3	BaCO <sub>3</sub> 99.999	2% HCl (v/v)	1,000	500ml
PBA4A3	BaCO <sub>3</sub> 99.999	2% HCl (v/v)	10,000	100ml
<b>Beryllium</b>				
PBE1A2	BeO 99.99	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PBE2A2	BeO 99.99	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PBE2C2	BeO 99.99	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PBE4A2	BeO 99.99	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
<b>Bismuth</b>				
PBI1A6	Bi 99.999	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PBI2A6	Bi 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PBI2C6	Bi 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PBI4A6	Bi 99.999	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml

Product No.	Starting Material and its Purity %	Matrix	Conc µg/ml	Pack size
<b>Boron</b>				
PB1A7	H <sub>3</sub> BO <sub>3</sub> 99.99	H <sub>2</sub> O	100	100ml
PB2A7	H <sub>3</sub> BO <sub>3</sub> 99.99	H <sub>2</sub> O	1,000	100ml
PB2C7	H <sub>3</sub> BO <sub>3</sub> 99.99	H <sub>2</sub> O	1,000	500ml
PB4A7	H <sub>3</sub> BO <sub>3</sub> 99.99	H <sub>2</sub> O	10,000	100ml
<b>Cadmium</b>				
PCD1A2	Cd 99.999	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PCD2A2	Cd 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PCD2C2	Cd 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PCD4A2	Cd 99.999	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
PCD2A3	Cd 99.999	2% HCl (v/v)	1,000	100ml
PCD2C3	Cd 99.999	2% HCl (v/v)	1,000	500ml
<b>Calcium</b>				
PCA1A2	CaCO <sub>3</sub> 99.995	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PCA2A2	CaCO <sub>3</sub> 99.995	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PCA2C2	CaCO <sub>3</sub> 99.995	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PCA4A2	CaCO <sub>3</sub> 99.995	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
PCA2A3	CaCO <sub>3</sub> 99.995	2% HCl (v/v)	1,000	100ml
PCA2C3	CaCO <sub>3</sub> 99.995	2% HCl (v/v)	1,000	500ml
PCA4A3	CaCO <sub>3</sub> 99.995	2% HCl (v/v)	10,000	100ml
<b>Cerium</b>				
PCE1A2	CeO <sub>2</sub> 99.99	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PCE2A2	CeO <sub>2</sub> 99.99	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PCE2C2	CeO <sub>2</sub> 99.99	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PCE4A2	CeO <sub>2</sub> 99.99	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
<b>Cesium</b>				
PCS1A2	CsCl 99.999	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PCS2A2	CsCl 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PCS2C2	CsCl 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PCS4A2	CsCl 99.999	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
<b>Chromium</b>				
PCR1A2	Cr(NO <sub>3</sub> ) <sub>3</sub> .9H <sub>2</sub> O 99.99+	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PCR2A2	Cr(NO <sub>3</sub> ) <sub>3</sub> .9H <sub>2</sub> O 99.99+	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PCR2C2	Cr(NO <sub>3</sub> ) <sub>3</sub> .9H <sub>2</sub> O 99.99+	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PCR4A2	Cr(NO <sub>3</sub> ) <sub>3</sub> .9H <sub>2</sub> O 99.99+	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
PCR2A3	Cr 99.995	2% HCl (v/v)	1,000	100ml
PCR2C3	Cr 99.995	2% HCl (v/v)	1,000	500ml
PCR4A3	Cr 99.995	2% HCl (v/v)	10,000	100ml
PCR2A7	Cr 99.995	2% HCl (v/v)	1,000	100ml
<b>Cobalt</b>				
PCO1A2	Co 99.995	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PCO2A2	Co 99.995	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PCO2C2	Co 99.995	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PCO4A2	Co 99.995	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
PCO4A3	Co 99.995	2% HCl (v/v)	10,000	100ml
PCO4C3	Co 99.995	2% HCl (v/v)	10,000	500ml

Product No.	Starting Material and its Purity %	Matrix	Conc µg/ml	Pack size
<b>Copper</b>				
PCU1A2	Cu 99.999	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PCU2A2	Cu 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PCU2C2	Cu 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PCU4A2	Cu 99.999	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
PCU2A3	Cu 99.999	2% HCl (v/v)	1,000	100ml
PCU2C3	Cu 99.999	2% HCl (v/v)	1,000	500ml
PCU4A3	Cu 99.999	2% HCl (v/v)	10,000	100ml
<b>Dysprosium</b>				
PDY1A2	DY <sub>2</sub> O <sub>3</sub> 99.99+	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PDY2A2	DY <sub>2</sub> O <sub>3</sub> 99.99+	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PDY2C2	DY <sub>2</sub> O <sub>3</sub> 99.99+	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PDY4A2	DY <sub>2</sub> O <sub>3</sub> 99.99+	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
<b>Erbium</b>				
PER1A2	Er <sub>2</sub> O <sub>3</sub> 99.99+	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PER2A2	Er <sub>2</sub> O <sub>3</sub> 99.99+	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PER2C2	Er <sub>2</sub> O <sub>3</sub> 99.99+	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PER4A2	Er <sub>2</sub> O <sub>3</sub> 99.99+	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
<b>Europium</b>				
PEU1A2	Eu <sub>2</sub> O <sub>3</sub> 99.999	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PEU2A2	Eu <sub>2</sub> O <sub>3</sub> 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PEU2C2	Eu <sub>2</sub> O <sub>3</sub> 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PEU4A2	Eu <sub>2</sub> O <sub>3</sub> 99.999	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
<b>Gadolinium</b>				
PGD1A2	Gd <sub>2</sub> O <sub>3</sub> 99.995	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PGD2A2	Gd <sub>2</sub> O <sub>3</sub> 99.995	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PGD2C2	Gd <sub>2</sub> O <sub>3</sub> 99.995	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PGD4A2	Gd <sub>2</sub> O <sub>3</sub> 99.995	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
<b>Gallium</b>				
PGA1A2	Ga 99.999	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PGA2A2	Ga 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PGA2C2	Ga 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PGA4A2	Ga 99.999	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
<b>Germanium</b>				
PGE1A7	Ge 99.999	1% HF + 5% HNO <sub>3</sub> (v/v)	100	100ml
PGE2A7	Ge 99.999	1% HF + 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PGE2C7	Ge 99.999	1% HF + 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PGE4A7	Ge 99.999	1% HF + 5% HNO <sub>3</sub> (v/v)	10,000	100ml
<b>Gold</b>				
PAU1A8	Au 99.998	5% HCl (v/v)	100	100ml
PAU2A8	Au 99.998	5% HCl (v/v)	1,000	100ml
PAU2C8	Au 99.998	5% HCl (v/v)	1,000	500ml
PAU4A8	Au 99.998	5% HCl (v/v)	10,000	100ml
<b>Hafnium</b>				
PHF1A3	Hf 99.9	1% HF + 5% HNO <sub>3</sub> (v/v)	100	100ml
PHF2A3	Hf 99.9	1% HF + 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PHF2C3	Hf 99.9	1% HF + 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PHF4A3	Hf 99.9	1% HF + 5% HNO <sub>3</sub> (v/v)	10,000	100ml

Product No.	Starting Material and its Purity %	Matrix	Conc µg/ml	Pack size
<b>Holmium</b>				
PHO1A3	Ho <sub>2</sub> O <sub>3</sub> 99.999	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PHO2A2	Ho <sub>2</sub> O <sub>3</sub> 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PHO2C2	Ho <sub>2</sub> O <sub>3</sub> 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PHO4A2	Ho <sub>2</sub> O <sub>3</sub> 99.999	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
<b>Indium</b>				
PIN1A2	In 99.999	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PIN2A2	In 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PIN2C2	In 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PIN4A2	In 99.999	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
<b>Iridium</b>				
PIR1A8	(NH <sub>4</sub> ) <sub>2</sub> IrCl <sub>6</sub> 99.998	5% HCl (v/v)	100	100ml
PIR2A8	(NH <sub>4</sub> ) <sub>2</sub> IrCl <sub>6</sub> 99.998	5% HCl (v/v)	1,000	100ml
PIR2C8	(NH <sub>4</sub> ) <sub>2</sub> IrCl <sub>6</sub> 99.998	5% HCl (v/v)	1,000	500ml
PIR4A8	(NH <sub>4</sub> ) <sub>2</sub> IrCl <sub>6</sub> 99.998	5% HCl (v/v)	10,000	100ml
<b>Iron</b>				
PFE1A2	Fe 99.999	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PFE2A2	Fe 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PFE2C2	Fe 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PFE4A2	Fe 99.999	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
PFE2A3	Fe 99.999	2 - 5% HCl (v/v)	1,000	100ml
PFE2C3	Fe 99.999	2 - 5% HCl (v/v)	1,000	500ml
PFE4A3	Fe 99.999	2 - 5% HCl (v/v)	10,000	100ml
<b>Lanthanum</b>				
PLA1A2	LA <sub>2</sub> O <sub>3</sub> 99.999	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PLA2A2	LA <sub>2</sub> O <sub>3</sub> 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PLA2C2	LA <sub>2</sub> O <sub>3</sub> 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PLA4A2	LA <sub>2</sub> O <sub>3</sub> 99.999	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
<b>Lead</b>				
PPB1A2	Pb 99.999	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PPB2A2	Pb 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PPB2C2	Pb 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PPB4A2	Pb 99.999	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
<b>Lithium</b>				
PLI1A2	Li <sub>2</sub> CO <sub>3</sub> 99.997	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PLI2A2	Li <sub>2</sub> CO <sub>3</sub> 99.997	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PLI2C2	Li <sub>2</sub> CO <sub>3</sub> 99.997	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PLI4A2	Li <sub>2</sub> CO <sub>3</sub> 99.997	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
PLI2A3	Li <sub>2</sub> CO <sub>3</sub> 99.997	2 - 5% HCl (v/v)	1,000	100ml
PLI2C3	Li <sub>2</sub> CO <sub>3</sub> 99.997	2 - 5% HCl (v/v)	1,000	500ml
PLI4A3	Li <sub>2</sub> CO <sub>3</sub> 99.997	2 - 5% HCl (v/v)	10,000	100ml
<b>Lutetium</b>				
PLU1A2	Lu <sub>2</sub> O <sub>3</sub> 99.99	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PLU2A2	Lu <sub>2</sub> O <sub>3</sub> 99.99	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PLU2C2	Lu <sub>2</sub> O <sub>3</sub> 99.99	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PLU4A2	Lu <sub>2</sub> O <sub>3</sub> 99.99	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml



Product No.	Starting Material and its Purity %	Matrix	Conc µg/ml	Pack size
<b>Magnesium</b>				
PMG1A2	Mg 99.99	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PMG2A2	Mg 99.99	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PMG2C2	Mg 99.99	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PMG4A2	Mg 99.99	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
PMG2A3	Mg 99.99	2 - 5% HCl (v/v)	1,000	100ml
PMG2C3	Mg 99.99	2 - 5% HCl (v/v)	1,000	500ml
PMG4A3	Mg 99.99	2 - 5% HCl (v/v)	10,000	100ml
<b>Manganese</b>				
PMN1A2	Mn 99.98	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PMN2A2	Mn 99.98	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PMN2C2	Mn 99.98	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PMN4A2	Mn 99.98	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
<b>Mercury</b>				
PHG1A6	Hg 99.999+	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PHG2A6	Hg 99.999+	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PHG2C6	Hg 99.999+	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PHG4A6	Hg 99.999+	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
<b>Molybdenum</b>				
PMO1A7	Mo 99.999	2% NH <sub>4</sub> OH (v/v)	100	100ml
PMO2A7	Mo 99.999	2% NH <sub>4</sub> OH (v/v)	1,000	100ml
PMO2C7	Mo 99.999	2% NH <sub>4</sub> OH (v/v)	1,000	500ml
PMO4A7	Mo 99.999	2% NH <sub>4</sub> OH (v/v)	10,000	100ml
<b>Neodymium</b>				
PND1A2	Nd <sub>2</sub> O <sub>3</sub> 99.99	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PND2A2	Nd <sub>2</sub> O <sub>3</sub> 99.99	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PND2C2	Nd <sub>2</sub> O <sub>3</sub> 99.99	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PND4A2	Nd <sub>2</sub> O <sub>3</sub> 99.99	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
<b>Nickel</b>				
PNI1A2	Ni 99.999	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PNI2A2	Ni 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PNI2C2	Ni 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PNI4A2	Ni 99.999	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
<b>Niobium</b>				
PNB1A9	Nb 99.9+	1% HF + 5% HNO <sub>3</sub> (v/v)	100	100ml
PNB2A9	Nb 99.9+	1% HF + 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PNB2C9	Nb 99.9+	1% HF + 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PNB4A9	Nb 99.9+	1% HF + 5% HNO <sub>3</sub> (v/v)	10,000	100ml
<b>Palladium</b>				
PPD1A8	Pd 99.999	5% HCl (v/v)	100	100ml
PPD2A8	Pd 99.999	5% HCl (v/v)	1,000	100ml
PPD2C8	Pd 99.999	5% HCl (v/v)	1,000	500ml
PPB4A8	Pd 99.999	5% HCl (v/v)	10,000	100ml
<b>Phosphorus</b>				
PP1A7	NH <sub>4</sub> H <sub>2</sub> PO <sub>4</sub> 99.999	0.05% H <sub>2</sub> SO <sub>4</sub> (v/v)	100	100ml
PP2A7	NH <sub>4</sub> H <sub>2</sub> PO <sub>4</sub> 99.999	0.05% H <sub>2</sub> SO <sub>4</sub> (v/v)	1,000	100ml
PP2C7	NH <sub>4</sub> H <sub>2</sub> PO <sub>4</sub> 99.999	0.05% H <sub>2</sub> SO <sub>4</sub> (v/v)	1,000	500ml
PP4A7	NH <sub>4</sub> H <sub>2</sub> PO <sub>4</sub> 99.999	0.05% H <sub>2</sub> SO <sub>4</sub> (v/v)	10,000	100ml
PPT1A8	Pt 99.995	5% HCl (v/v)	100	100ml
PPT2A8	Pt 99.995	5% HCl (v/v)	1,000	100ml
PPT2C8	Pt 99.995	5% HCl (v/v)	1,000	500ml
PPT4A8	Pt 99.995	5% HCl (v/v)	10,000	100ml

Product No.	Starting Material and its Purity %	Matrix	Conc µg/ml	Pack size
<b>Potassium</b>				
PK1A2	KNO <sub>3</sub> 99.999	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PK2A2	KNO <sub>3</sub> 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PK2C2	KNO <sub>3</sub> 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PK4A2	KNO <sub>3</sub> 99.999	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
PK2A3	KCl 99.999	H <sub>2</sub> O	1,000	100ml
PK2C3	KCl 99.999	H <sub>2</sub> O	1,000	500ml
PK4A3	KCl 99.999	H <sub>2</sub> O	10,000	100ml
<b>Praseodymium</b>				
PPR1A2	Pr <sub>6</sub> O <sub>11</sub> 99.999	5% HCl (v/v)	100	100ml
PPR2A2	Pr <sub>6</sub> O <sub>11</sub> 99.999	5% HCl (v/v)	1,000	100ml
PPR2C2	Pr <sub>6</sub> O <sub>11</sub> 99.999	5% HCl (v/v)	1,000	500ml
PPR4A2	Pr <sub>6</sub> O <sub>11</sub> 99.999	5% HCl (v/v)	10,000	100ml
<b>Rhenium</b>				
PRE1A7	NH <sub>4</sub> ReO <sub>4</sub> 99.999	H <sub>2</sub> O	100	100ml
PRE2A7	NH <sub>4</sub> ReO <sub>4</sub> 99.999	H <sub>2</sub> O	1,000	100ml
PRE2C7	NH <sub>4</sub> ReO <sub>4</sub> 99.999	H <sub>2</sub> O	1,000	500ml
PRE4A7	NH <sub>4</sub> ReO <sub>4</sub> 99.999	H <sub>2</sub> O	10,000	100ml
<b>Rhodium</b>				
PRH1A8	(NH <sub>4</sub> ) <sub>3</sub> RhCl <sub>6</sub> 99.99	5% HCl (v/v)	100	100ml
PRH2A8	(NH <sub>4</sub> ) <sub>3</sub> RhCl <sub>6</sub> 99.99	5% HCl (v/v)	1,000	100ml
PRH2C8	(NH <sub>4</sub> ) <sub>3</sub> RhCl <sub>6</sub> 99.99	5% HCl (v/v)	1,000	500ml
PRH4A8	(NH <sub>4</sub> ) <sub>3</sub> RhCl <sub>6</sub> 99.99	5% HCl (v/v)	10,000	100ml
<b>Rubidium</b>				
PRB1A2	RbNO <sub>3</sub> 99.99	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PRB2A2	RbNO <sub>3</sub> 99.99	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PRB2C2	RbNO <sub>3</sub> 99.99	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PRB4A2	RbNO <sub>3</sub> 99.99	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
<b>Ruthenium</b>				
PRU1A8	(NH <sub>4</sub> ) <sub>3</sub> RuCl <sub>6</sub> 99.99	5% HCl (v/v)	100	100ml
PRU2A8	(NH <sub>4</sub> ) <sub>3</sub> RuCl <sub>6</sub> 99.99	5% HCl (v/v)	1,000	100ml
PRU2C8	(NH <sub>4</sub> ) <sub>3</sub> RuCl <sub>6</sub> 99.99	5% HCl (v/v)	1,000	500ml
PRU4A8	(NH <sub>4</sub> ) <sub>3</sub> RuCl <sub>6</sub> 99.99	5% HCl (v/v)	10,000	100ml
<b>Samarium</b>				
PSM1A2	Sm <sub>2</sub> O <sub>3</sub> 99.99	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PSM2A2	Sm <sub>2</sub> O <sub>3</sub> 99.99	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PSM2C2	Sm <sub>2</sub> O <sub>3</sub> 99.99	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PSM4A2	Sm <sub>2</sub> O <sub>3</sub> 99.99	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
<b>Scandium</b>				
PSC1A2	Sc <sub>2</sub> O <sub>3</sub> 99.999	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PSC2A2	Sc <sub>2</sub> O <sub>3</sub> 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PSC2C2	Sc <sub>2</sub> O <sub>3</sub> 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PSC4A2	Sc <sub>2</sub> O <sub>3</sub> 99.999	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
<b>Selenium</b>				
PSE1A2	Se 99.999	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PSE2A2	Se 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PSE2C2	Se 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PSE4A2	Se 99.999	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml

Product No.	Starting Material and its Purity %	Matrix	Conc µg/ml	Pack size
<b>Silicon</b>				
PSI1A9	(NH <sub>4</sub> ) <sub>2</sub> SiF <sub>6</sub> 99.99	0.05% HF (v/v)	100	100ml
PSI2A9	(NH <sub>4</sub> ) <sub>2</sub> SiF <sub>6</sub> 99.99	0.05% HF (v/v)	1,000	100ml
PSI2C9	(NH <sub>4</sub> ) <sub>2</sub> SiF <sub>6</sub> 99.99	0.05% HF (v/v)	1,000	500ml
PSI4A9	(NH <sub>4</sub> ) <sub>2</sub> SiF <sub>6</sub> 99.99	0.05% HF (v/v)	10,000	100ml
PSI2A7	Na <sub>2</sub> SiO <sub>3</sub> 99.9	H <sub>2</sub> O	1,000	100ml
PSI2C7	Na <sub>2</sub> SiO <sub>3</sub> 99.9	H <sub>2</sub> O	1,000	500ml
PSI4A7	Na <sub>2</sub> SiO <sub>3</sub> 99.9	H <sub>2</sub> O	10,000	100ml
<b>Silver</b>				
PAG1A2	Ag 99.999	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PAG2A2	Ag 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PAG2C2	Ag 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PAG4A2	Ag 99.999	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
<b>Sodium</b>				
PNA1A2	NaNO <sub>3</sub> 99.99	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PNA2A2	NaNO <sub>3</sub> 99.99	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PNA2C2	NaNO <sub>3</sub> 99.99	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PNA4A2	NaNO <sub>3</sub> 99.99	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
PNA2A3	NaCl 99.999	H <sub>2</sub> O	1,000	100ml
PNA2C3	NaCl 99.999	H <sub>2</sub> O	1,000	500ml
PNA4A3	NaCl 99.999	H <sub>2</sub> O	10,000	100ml
<b>Strontium</b>				
PSR1A2	SrCO <sub>3</sub> 99.995	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PSR2A2	SrCO <sub>3</sub> 99.995	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PSR2C2	SrCO <sub>3</sub> 99.995	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PSR4A2	SrCO <sub>3</sub> 99.995	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
PSR2A3	SrCO <sub>3</sub> 99.995	2 - 5% HCl (v/v)	1,000	100ml
PSR2C3	SrCO <sub>3</sub> 99.995	2 - 5% HCl (v/v)	1,000	500ml
PSR4A3	SrCO <sub>3</sub> 99.995	2 - 5% HCl (v/v)	10,000	100ml
<b>Sulphur</b>				
PS1A7	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> 99.999	H <sub>2</sub> O	100	100ml
PS2A7	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> 99.999	H <sub>2</sub> O	1,000	100ml
PS2C7	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> 99.999	H <sub>2</sub> O	1,000	500ml
PS4A7	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> 99.999	H <sub>2</sub> O	10,000	100ml
<b>Tantalum</b>				
PTA1A9	Ta 99.98	1% HF + 5% HNO <sub>3</sub> (v/v)	100	100ml
PTA2A9	Ta 99.98	1% HF + 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PTA2C9	Ta 99.98	1% HF + 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PTA4A9	Ta 99.98	1% HF + 5% HNO <sub>3</sub> (v/v)	10,000	100ml
<b>Tellurium</b>				
PTE1A10	Te 99.999	20% HCl (v/v)	100	100ml
PTE2A10	Te 99.999	20% HCl (v/v)	1,000	100ml
PTE2C10	Te 99.999	20% HCl (v/v)	1,000	500ml
<b>Terbium</b>				
PTB1A2	Tb <sub>4</sub> O <sub>7</sub> 99.999	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PTB2A2	Tb <sub>4</sub> O <sub>7</sub> 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PTB2C2	Tb <sub>4</sub> O <sub>7</sub> 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PTB4A2	Tb <sub>4</sub> O <sub>7</sub> 99.999	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml

Product No.	Starting Material and its Purity %	Matrix	Conc µg/ml	Pack size
<b>Thallium</b>				
PTL1A2	TlNO <sub>3</sub> 99.9995	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PTL2A2	TlNO <sub>3</sub> 99.9995	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PTL2C2	TlNO <sub>3</sub> 99.9995	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PTL4A2	TlNO <sub>3</sub> 99.9995	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
<b>Thorium</b>				
PTH1A2	ThO <sub>2</sub> 99.95	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PTH2A2	ThO <sub>2</sub> 99.95	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PTH2C2	ThO <sub>2</sub> 99.95	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PTH4A2	ThO <sub>2</sub> 99.95	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
<b>Thulium</b>				
PTM1A2	Tm <sub>2</sub> O <sub>3</sub> 99.99	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PTM2A2	Tm <sub>2</sub> O <sub>3</sub> 99.99	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PTM2C2	Tm <sub>2</sub> O <sub>3</sub> 99.99	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PTM4A2	Tm <sub>2</sub> O <sub>3</sub> 99.99	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
<b>Tin</b>				
PSN1A5	Sn 99.999	1% HF + 5% HNO <sub>3</sub> (v/v)	100	100ml
PSN2A5	Sn 99.999	1% HF + 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PSN2C5	Sn 99.999	1% HF + 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PSN4A5	Sn 99.999	1% HF + 5% HNO <sub>3</sub> (v/v)	10,000	100ml
PSN2A13	Sn 99.999	10% HCl (v/v)	1,000	100ml
PSN2C13	Sn 99.999	10% HCl (v/v)	1,000	500ml
PSN4A19	Sn 99.999	20% HCl (v/v)	10,000	100ml
<b>Titanium</b>				
PTI1A9	Ti 99.98	1% HF + 5% HNO <sub>3</sub> (v/v)	100	100ml
PTI2A9	Ti 99.98	1% HF + 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PTI2C9	Ti 99.98	1% HF + 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PTI4A9	Ti 99.98	1% HF + 5% HNO <sub>3</sub> (v/v)	10,000	100ml
<b>Tungsten</b>				
PW2A7	W 99.99+	2% NH <sub>4</sub> OH (v/v)	1,000	100ml
PW2C7	W 99.99+	2% NH <sub>4</sub> OH (v/v)	1,000	500ml
PW4A7	W 99.99+	2% NH <sub>4</sub> OH (v/v)	10,000	100ml
<b>Uranium</b>				
PU1A2	U <sub>3</sub> O <sub>8</sub> 99.95	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PU2A2	U <sub>3</sub> O <sub>8</sub> 99.95	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PU2C2	U <sub>3</sub> O <sub>8</sub> 99.95	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PU4A2	U <sub>3</sub> O <sub>8</sub> 99.95	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
<b>Vanadium</b>				
PV1A19	NH <sub>4</sub> VO <sub>3</sub> 99.95+	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PV2A19	NH <sub>4</sub> VO <sub>3</sub> 99.95+	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PV2C19	NH <sub>4</sub> VO <sub>3</sub> 99.95+	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PV4A19	NH <sub>4</sub> VO <sub>3</sub> 99.95+	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
<b>Ytterbium</b>				
PYB2A2	Yb <sub>2</sub> O <sub>3</sub> 99.99	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PYB2C2	Yb <sub>2</sub> O <sub>3</sub> 99.99	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PYB4A2	Yb <sub>2</sub> O <sub>3</sub> 99.99	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
<b>Yttrium</b>				
PY1A2	Y <sub>2</sub> O <sub>3</sub> 99.999	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PY2A2	Y <sub>2</sub> O <sub>3</sub> 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PY2C2	Y <sub>2</sub> O <sub>3</sub> 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PY4A2	Y <sub>2</sub> O <sub>3</sub> 99.999	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml

Product No.	Starting Material and its Purity %	Matrix	Conc µg/ml	Pack size
<b>Zinc</b>				
PZN1A2	Zn 99.999	2 - 5% HNO <sub>3</sub> (v/v)	100	100ml
PZN2A2	Zn 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PZN2C2	Zn 99.999	2 - 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PZN4A2	Zn 99.999	2 - 5% HNO <sub>3</sub> (v/v)	10,000	100ml
PZN2A3	Zn 99.999	2% HCl (v/v)	1,000	100ml
PZN2C3	Zn 99.999	2% HCl (v/v)	1,000	500ml
PZN4A3	Zn 99.999	2% HCl (v/v)	10,000	100ml
<b>Zirconium</b>				
PZR1A2	Zr 99.98	1% HF + 5% HNO <sub>3</sub> (v/v)	100	100ml
PZR2A2	Zr 99.98	1% HF + 5% HNO <sub>3</sub> (v/v)	1,000	100ml
PZR2C2	Zr 99.98	1% HF + 5% HNO <sub>3</sub> (v/v)	1,000	500ml
PZR4A2	Zr 99.98	1% HF + 5% HNO <sub>3</sub> (v/v)	10,000	100ml



# Standard Methods for the Examination of Water and Wastewater 21st Edition 2005, APHA AWWA WEF Part 3000, Metals Part 3500 Metals by Flame Photometry

## Single Element Flame Photometry Standards

Product No.	Description	Concentration	Pack size
FIBA1	Barium	1,000ppm	500ml
FIBA3	Barium	3,000ppm	500ml
FICA1	Calcium	1,000ppm	500ml
FICA2	Calcium	2,000ppm	500ml
FICS1	Cesium	1,000ppm	500ml
FILI1	Lithium	1,000ppm	500ml
FINA1	Sodium	1,000ppm	500ml
FIK1	Potassium	1,000ppm	500ml
FISR1	Strontium	1,000ppm	500ml
FIRB1	Rubidium	1,000ppm	500ml

## Multi-Element Linearity Standards

Product Number	Description	Concentration	Pack Size
FPLE5		Low	500ml
	Barium	28.8ppm	
	Calcium	18.2ppm	
	Lithium	1.91ppm	
	Potassium	2.09ppm	
	Sodium	2.15ppm	
FPME5		Medium	500ml
	Barium	105ppm	
	Calcium	52.4ppm	
	Lithium	5.42ppm	
	Potassium	5.37ppm	
	Sodium	5.67ppm	
FPHE5		High	500ml
	Barium	510ppm	
	Calcium	112ppm	
	Lithium	10.0ppm	
	Potassium	11.4ppm	
	Sodium	11.3ppm	
FPHK3	Combination of FPLE5, FPME5 & FPHE5	As above	3 x 500ml

# Standard Methods for the Examination of Water and Wastewater 21st Edition 2005, APHA AWWA WEF Part 4000, Inorganic Nonmetallic Constituents

## Part 4110 Determination of Anions by Ion Chromatography Anion Standards

Product No.	Ion	Starting Material	Matrix	Concentration	Pack size
<b>Acetate</b>					
ICAU35	CH <sub>3</sub> COO-	Sodium Acetate	H <sub>2</sub> O	0.1mg/ml (100ppm)	100ml
ICAS35	CH <sub>3</sub> COO-	Sodium Acetate	H <sub>2</sub> O	1mg/ml (1,000ppm)	100ml
ICAB35	CH <sub>3</sub> COO-	Sodium Acetate	H <sub>2</sub> O	1mg/ml (1,000ppm)	500ml
<b>Bromide</b>					
ICAU01	Br-	KBr	H <sub>2</sub> O	0.1mg/ml (100ppm)	100ml
ICAS01	Br-	KBr	H <sub>2</sub> O	1mg/ml (1,000ppm)	100ml
ICAB01	Br-	KBr	H <sub>2</sub> O	1mg/ml (1,000ppm)	500ml
<b>Chloride</b>					
ICAU02	Cl-	KCl	H <sub>2</sub> O	0.1mg/ml (100ppm)	100ml
ICAS02	Cl-	KCl	H <sub>2</sub> O	1mg/ml (1,000ppm)	100ml
ICAB02	Cl-	KCl	H <sub>2</sub> O	1mg/ml (1,000ppm)	500ml
<b>Chromate</b>					
ICAU29	CrO <sub>4</sub> <sup>2-</sup>	NH <sub>4</sub> Cr <sub>2</sub> O <sub>7</sub>	H <sub>2</sub> O	0.1mg/ml (100ppm)	100ml
ICAS29	CrO <sub>4</sub> <sup>2-</sup>	NH <sub>4</sub> Cr <sub>2</sub> O <sub>7</sub>	H <sub>2</sub> O	1mg/ml (1,000ppm)	100ml
ICAB29	CrO <sub>4</sub> <sup>2-</sup>	NH <sub>4</sub> Cr <sub>2</sub> O <sub>7</sub>	H <sub>2</sub> O	1mg/ml (1,000ppm)	500ml
<b>Cyanide</b>					
ICAU08	CN-	NaCN	H <sub>2</sub> O	0.1mg/ml (100ppm)	100ml
ICAS08	CN-	NaCN	H <sub>2</sub> O	1mg/ml (1,000ppm)	100ml
ICAB08	CN-	NaCN	H <sub>2</sub> O	1mg/ml (1,000ppm)	500ml
<b>Fluoride</b>					
ICAU03	F-	NaF	H <sub>2</sub> O	0.1mg/ml (100ppm)	100ml
ICAS03	F-	NaF	H <sub>2</sub> O	1mg/ml (1,000ppm)	100ml
ICAB03	F-	NaF	H <sub>2</sub> O	1mg/ml (1,000ppm)	500ml
<b>Formate</b>					
ICAU34	HCOO-	Sodium Formate	H <sub>2</sub> O	0.1mg/ml (100ppm)	100ml
ICAS34	HCOO-	Sodium Formate	H <sub>2</sub> O	1mg/ml (1,000ppm)	100ml
ICAB34	HCOO-	Sodium Formate	H <sub>2</sub> O	1mg/ml (1,000ppm)	500ml
<b>Iodide</b>					
ICAU40	I-	NH <sub>4</sub> I	H <sub>2</sub> O	0.1mg/ml (100ppm)	100ml
ICAS40	I-	NH <sub>4</sub> I	H <sub>2</sub> O	1mg/ml (1,000ppm)	100ml
ICAB40	I-	NH <sub>4</sub> I	H <sub>2</sub> O	1mg/ml (1,000ppm)	500ml

Product No.	Ion	Starting Material	Matrix	Concentration	Pack size
<b>Nitrate</b>					
ICAU04	NO <sub>3</sub> <sup>-</sup>	NH <sub>4</sub> NO <sub>3</sub>	H <sub>2</sub> O	0.1mg/ml (100ppm)	100ml
ICAS04	NO <sub>3</sub> <sup>-</sup>	NH <sub>4</sub> NO <sub>3</sub>	H <sub>2</sub> O	1mg/ml (1,000ppm)	100ml
ICAB04	NO <sub>3</sub> <sup>-</sup>	NH <sub>4</sub> NO <sub>3</sub>	H <sub>2</sub> O	1mg/ml (1,000ppm)	500ml
<b>Nitrite</b>					
ICAU11	NO <sub>2</sub> <sup>-</sup>	NaNO <sub>2</sub>	H <sub>2</sub> O	0.1mg/ml (100ppm)	100ml
ICAS11	NO <sub>2</sub> <sup>-</sup>	NaNO <sub>2</sub>	H <sub>2</sub> O	1mg/ml (1,000ppm)	100ml
ICAB11	NO <sub>2</sub> <sup>-</sup>	NaNO <sub>2</sub>	H <sub>2</sub> O	1mg/ml (1,000ppm)	500ml
<b>Oxalate</b>					
ICAU13	(COO) <sub>2</sub> <sup>2-</sup>	K <sub>2</sub> C <sub>2</sub> O <sub>4</sub>	H <sub>2</sub> O	0.1mg/ml (100ppm)	100ml
ICAS13	(COO) <sub>2</sub> <sup>2-</sup>	K <sub>2</sub> C <sub>2</sub> O <sub>4</sub>	H <sub>2</sub> O	1mg/ml (1,000ppm)	100ml
ICAB13	(COO) <sub>2</sub> <sup>2-</sup>	K <sub>2</sub> C <sub>2</sub> O <sub>4</sub>	H <sub>2</sub> O	1mg/ml (1,000ppm)	500ml
<b>Phosphate</b>					
ICAU05	PO <sub>4</sub> <sup>3-</sup>	NH <sub>4</sub> H <sub>2</sub> PO <sub>4</sub>	H <sub>2</sub> O	0.1mg/ml (100ppm)	100ml
ICAS05	PO <sub>4</sub> <sup>3-</sup>	NH <sub>4</sub> H <sub>2</sub> PO <sub>4</sub>	H <sub>2</sub> O	1mg/ml (1,000ppm)	100ml
ICAB05	PO <sub>4</sub> <sup>3-</sup>	NH <sub>4</sub> H <sub>2</sub> PO <sub>4</sub>	H <sub>2</sub> O	1mg/ml (1,000ppm)	500ml
<b>Silica</b>					
ICAU12	SiO <sub>2</sub>	Na <sub>2</sub> O <sub>3</sub> Si	H <sub>2</sub> O	0.1mg/ml (100ppm)	100ml
ICAS12	SiO <sub>2</sub>	Na <sub>2</sub> O <sub>3</sub> Si	H <sub>2</sub> O	1mg/ml (1,000ppm)	100ml
ICAB12	SiO <sub>2</sub>	Na <sub>2</sub> O <sub>3</sub> Si	H <sub>2</sub> O	1mg/ml (1,000ppm)	500ml
<b>Sulphate</b>					
ICAU06	SO <sub>4</sub> <sup>2-</sup>	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	H <sub>2</sub> O	0.1mg/ml (100ppm)	100ml
ICAS06	SO <sub>4</sub> <sup>2-</sup>	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	H <sub>2</sub> O	1mg/ml (1,000ppm)	100ml
ICAB06	SO <sub>4</sub> <sup>2-</sup>	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	H <sub>2</sub> O	1mg/ml (1,000ppm)	500ml
<b>Tartrate</b>					
ICAU36	(CHOH) <sub>2</sub> (COO) <sub>2</sub> <sup>2-</sup>	Tartaric Acid	H <sub>2</sub> O	0.1mg/ml (100ppm)	100ml
ICAS36	(CHOH) <sub>2</sub> (COO) <sub>2</sub> <sup>2-</sup>	Tartaric Acid	H <sub>2</sub> O	1mg/ml (1,000ppm)	100ml
ICAB36	(CHOH) <sub>2</sub> (COO) <sub>2</sub> <sup>2-</sup>	Tartaric Acid	H <sub>2</sub> O	1mg/ml (1,000ppm)	500ml

## Standard Methods for the Examination of Water and Wastewater 21st Edition 2005, APHA AWWA WEF Part 5000, Aggregate Organic Constituents. 5220 Chemical Oxygen Demand (COD) Chemical Oxygen Demand (COD) Standards

Product No.	Description	Pack Size
COD10	10 mg/l solution	500ml
COD20	20 mg/l solution	500ml
COD50	50 mg/l solution	500ml
COD100	100 mg/l solution	500ml
COD200	200 mg/l solution	500ml
COD500	500 mg/l solution	500ml
COD600	600 mg/l solution	500ml
COD1000	1000 mg/l solution	500ml
COD1300	1300 mg/l solution	500ml
COD1500	1500 mg/l solution	500ml
COD2000	2000 mg/l solution	500ml
COD5000	5000 mg/l solution	500ml
COD6000	6000 mg/l solution	500ml
COD10M	10000 mg/l solution	500ml
COD20M	20000 mg/l solution	500ml
COD60M5	60000 mg/l solution	500ml

## Chemical Oxygen Demand (COD) Reagents

Product No.	Description	Pack Size
WTR50W	COD Reagent (1977 method)*	2.5L
WTR49W	Modified COD Reagent (1986 method) Mercury free	2.5L
CODMS	20% w/v Mercury (II) Sulphate in 10% w/v Sulphuric Acid	500ml
KC2002F	0.0208M (0.125N) Potassium Dichromate	1L
AGN01001	Silver Nitrate Solution	100ml
AGS1W	1% w/v Silver Sulphate in Sulphuric Acid	2.5L
COD200	COD Calibration Standard 200mg/l Solution	500ml
COD600	COD Calibration Standard 600mg/l Solution	500ml
COD1300	COD Calibration Standard 1300mg/l Solution	500ml
PFS1	Ferroun Indicator	100ml

\* Methodology as per the Department of the Environment (U.K.) "Chemical Oxygen Demand (Dichromate Value) of Polluted and Waste Waters" published in 1977 and revised in 1986.

# Standard Methods for the Examination of Water and Wastewater 21st Edition 2005, APHA AWWA WEF Part 5000, Aggregate Organic Constituents, 5310 Total Organic Carbon

## TOC Standards

Product No.	Description	Pack Size
TOC5	Total Organic Carbon Standard 5ppm	500ml
TOC10	Total Organic Carbon Standard 10ppm	500ml
TOC20	Total Organic Carbon Standard 20ppm	500ml
TOC50	Total Organic Carbon Standard 50ppm	500ml
TOC100	Total Organic Carbon Standard 100ppm	500ml
TOC250	Total Organic Carbon Standard 250ppm	500ml
TOC500	Total Organic Carbon Standard 500ppm	500ml
TOC1M	Total Organic Carbon Standard 1000ppm	500ml
TOC2M	Total Organic Carbon Standard 2000ppm	500ml



# Standard Methods for the Examination of Water and Wastewater 21st Edition 2005, APHA AWWA WEF Part 6000, Individual Organic Compounds, 6200 Volatile Organic Compounds (VOCs) VOC Single Component Standards

Product No.	Description	Concentration	US EPA Methods	Packed in Ampoule
REVOC101	1,1-Dichlorethene	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC102	Dichloromethane	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC103	trans-1,2-Dichloroethene	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC104	1,1-Dichloroethane	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC105	cis-1,2-Dichloroethane	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC106	2,2-Dichloropropane	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC107	Bromochloromethane	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC108	Chloroform	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC109	1,1,1-Trichloroethane	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC110	1,1-Dichloropropene	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC111	Carbon Tetrachloride	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC112	1,2-Dichloroethane	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC113	Benzene	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC114	Trichloroethene	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC115	1,2-Dichloropropane	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC116	Dibromomethane	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC117	Bromodichloromethane	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC118	trans-1,3-Dichloropropene	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC119	Toluene	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC120	cis-1,3-Dichloropropene	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC121	1,3-Dichloropropane	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC122	Tetrachloroethene	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC123	Dibromochloromethane	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC124	Dibromoethane	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC125	Chlorobenzene	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC126	1,1,1,2-Tetrachloroethane	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B.	1ml

## Volatile Organic Compounds (VOCs) Single Component Standards

Product No.	Description	Concentration	US EPA Methods	Packed in Ampoule
REVOC127	Ethylbenzene	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC128	m-Xylene	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC129	p-Xylene	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC130	o-Xylene	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC131	Styrene	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC132	Bromoform	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC133	Isopropylbenzene	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC134	1,1,2-Tetrachloroethane	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC135	1,2,3-Trichloropropane	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC136	Bromobenzene	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC137	n-Propylbenzene	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC138	2-Chlorotoluene	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC139	1,2,4-Trimethylbenzene	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC140	4-Chlorotoluene	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC141	tert-Butylbenzene	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC142	1,3,5-Trimethylbenzene	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC143	sec-Butylbenzene	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC144	1,3-Dichlorobenzene	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC145	4-Isopropyltoluene	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC146	1,4-Dichlorobenzene	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC147	1,2-Dichlorobenzene	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC148	n-Butylbenzene	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC149	1,2-Dibromo-3-chloropropane	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC150	1,2,3-Trichlorobenzene	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC151	Hexachlorobutadiene	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC152	Naphthalene	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC153	1,2,4-Trichlorobenzene	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml
REVOC154	1,1,2-Trichloroethane	2,000µg/ml in Purge and Trap Methanol	502.2, 524.2, 8021, 8021A, 8021B, 624, 8240B, 8260B	1ml