



Physical & Chemical Standards



www.reagecon.com

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Dear Customer,

Welcome to the new Reagecon Physical and Chemical Standards catalogue. Since the publication of our last laboratory reagents catalogue, substantial changes have occurred in the field of analytical chemistry. Stringent regulatory demands combined with major economic implications and increased competitiveness, places necessity for validation on every analytical test performed, either in the laboratory or in the field. Not only must the correct result be obtained, but proof must also be provided of its fitness for purpose, validity and accuracy. Such proof must then be accessible, retrievable and presented in an easily understood format. Reagecon continue to respond to these challenges by presenting to its customers, an ever increasing range of highly specified, stable, traceable and certified standards.

The use of standards such as calibrators or control materials can greatly increase the possibility for the analyst to obtain the correct result and can provide definitive proof of the correctness of such a result from a technical perspective. Such materials can also be used for method validation, instrument qualification, verification and analyst qualification.



Since the beginning of 2011, we have developed a major pipeline of new products and we now have a broader and more comprehensive range of physical and chemical standards than any other producer worldwide. We are privileged to be able to present these new ranges to you here, for the first time. (4,000 product numbers)

We hope you find this new catalogue beneficial; that the products on offer match your technical specifications; represent value for money and that they will greatly enhance your ability to achieve valid and correct analytical results now and in the future.

Other rapidly occurring changes in the laboratory market place include stringent regulations pertaining to the shipment of hazardous goods, the development of e-commerce and the ever increasing requirement for Scientific Knowledge.

HAZARDOUS GOODS

Products which are known to be hazardous are labelled by Reagecon in accordance with The Globally Harmonised System of Classification and Labelling of Chemicals (GHS). The GHS is a system for standardising and harmonising the classification and labelling of chemicals.

RESEARCH AND DEVELOPMENT

From a strategic perspective, Research and Development continues to be a key business driver within Reagecon, with approximately 10% of our workforce engaged in this activity. Several industry or technology specific projects with various risk profiles are currently in the development pipeline. The progress of all of these projects as they reach maturity can be viewed at www.reagecon.com

BREATH OF PRODUCT

Reagecon continues to occupy a unique position in terms of the breadth and range of standards offered in the marketplace worldwide. These products cover a unique range of techniques, technologies and scientific disciplines and include the following:

- **Electrochemical**
 - pH, Conductivity, Ions, Redox, Titration
- **Physical**
 - Refractive Index, Density, Viscosity, Melting Point, Osmolality, Cryoscope, Turbidity
- **Organic**
 - Volatile Organic, Polycyclic Aromatic, Phenolics, Pesticides, Herbicides, Aroclors, Total Organic Carbon
- **Inorganic**
 - Metals, Anions, Total Inorganic Carbon
- **Physico-Chemical**
 - Colour, Spectrophotometry, (Linearity, Wave Length, Band Width, Stray Light)
- **Dissolution**
 - Ready to use/concentrates
- **Petrochemical/Biofuels**
 - TAN/TBN
 - Several families of products under development

The company also offers the widest range of Standards worldwide for the following industries/sectors:

- | | | | |
|----------------|--------------------|--------------------------------|--------|
| • Dairy | • Soil | • Water/Waste water | • Wine |
| • Pulp & Paper | • Sugar Processing | • Pharmaceutical (EP, USP, JP) | |

TECHNICAL AND SCIENTIFIC LITERATURE

As a producer of high quality physical and chemical standards, Reagecon employ a large number of scientists in areas of: new product development, quality, manufacturing and technical services. Our Scientists produce a large output of original technical and scientific literature and are responsible for several publications every year relating to various aspects of analytical chemistry. A selection of these papers can be viewed and downloaded at our website: www.reagecon.com

ACCREDITATION

Reagecon holds a unique position amongst producers of Standards and Reference Materials. We believe we are the only producer worldwide (May 2013) to have achieved ISO 17025 accreditation for all of the following fundamental metrological techniques:

- Calibration of laboratory balances
- Calibration of temperature controlled enclosures covering the scope of -196°C to +1200°
- Calibration of single and multi-channel pipettes
- The testing of density standards (0.6407 - 1.0337g 1ml) for use on digital density meters or hydrometer based techniques

These fundamental techniques alone or in combination continue to form the foundation cornerstone of metrology. They have a direct bearing on the measurement uncertainty of almost all Standards and Reference Materials.

E-COMMERCE

All of Reagecon's products can be purchased online from our web based laboratory shopping facility at www.reagecon.com

BUSINESS DEVELOPMENT

Over 30% of our workforce are engaged in Sales, Marketing and Business Development activities. At the time of writing we have specific departments dedicated to the following geographic regions: Ireland, UK, Western Europe, Eastern Europe, Middle East, Asia Pacific (including China), North and South America. This includes Reagecon offices in China and the United States and distributors operating in over 100 countries globally. The introductory text, cover notes and technical information contained within this catalogue is available on our website in most of the major world languages.

LABORATORY LOGISTICS GROUP

Reagecon is proud to be a partner company and shareholder in a large German based purchasing company called LLG (Laboratory Logistics Group).

At the time of writing LLG has up to 30 partner companies spread throughout Europe, Asia and the Middle East. This partnership affords Reagecon access to over 60,000 products which are contained in a large catalogue (see picture). It also confers the following additional benefits:

- Substantial stocks of laboratory consumables
- An excellent output of special promotions
- Outstanding networking opportunities with growth orientated partner companies, facilitating exchange of knowledge, trends and technical development.
- Trans national and cross cultural knowledge transfer, support, encouragement and insight into strategic thinking.



John J Barron
Managing Director
May 2013





Reagecon Technical Services

Laboratories today are facing new pressures, with increased regulatory demands requiring validity on every analytical test performed. Not only must the correct result be obtained, but proof must also be provided of its fitness for purpose, comparability and accuracy.

Irrespective of whether your laboratory is involved in analytical chemistry, life sciences, biotechnology, the clinical or pharmaceutical industries, several factors play a role in these laboratory demands and the correct performance of your instruments and equipment is crucial.

Reagecon Technical Services has over 25 years experience of providing complete support solutions to laboratories nationwide. As a technical centre of excellence, we were the first company in Ireland to gain INAB (ISO17025) Accreditation for Volume Calibration and were the first to offer INAB Accreditation across Volume, Weighing and Temperature. Services can be provided both on your site and in our dedicated metrology laboratory in Shannon (Ref. 265C).

Reagecon's Technical Services Department can help you to determine all of your calibration, maintenance and service requirements. We can design a full programme to meet these requirements and project manage the entire schedule for you, providing the following benefits to you:

- Managing fewer suppliers - using one company to manage calibration and service needs for all your equipment
- Easier scheduling - with the need to only contact one company for all your equipment needs
- Reduce downtime of equipment - on-site engineers can perform all services and work around your schedule in your laboratory
- Obtain the most competitive prices - reduce indirect costs by less administration of purchase orders and invoices

Customer Case studies have shown that a saving of 55% in support overheads can be made by using one supplier for all of your calibration, technical service, and support requirements.

VOLUME CALIBRATION SERVICES: Reagecon were the first Irish company to gain ISO 17025 (INAB) accreditation for calibration of pipettes and can calibrate both single and multi channel pipettes in our dedicated calibration laboratory or on our clients' premises. Most calibration providers calibrate multi-channel pipettes one channel at a time, which does not replicate the pipettes use and so does not characterise their operational performance. Reagecon use a special-purpose balance to calibrate all channels simultaneously, resulting in a calibration certificate that fully characterises the pipette's operational performance.

WEIGHING CALIBRATION SERVICES: Reagecon offers INAB accreditation for Weighing Calibration, with all makes and models of balances catered for (Ref. 265C). This service is provided on-site to laboratories anywhere. We can provide re-certification of your check weights for daily use.

TEMPERATURE CALIBRATION SERVICES: Reagecon offers an INAB Accredited calibration service for the full range of temperature controlled enclosures and is the only company in Ireland to cover the scope of -196°C to +1200°C (Ref. 265C).

ELECTROCHEMISTRY INSTRUMENT CALIBRATION SERVICE: Reagecon offers the complete Electrochemistry Calibration Service. All makes and models of pH, Conductivity and DO meters are calibrated using standards tested and certified to an ISO17025 Test Method (Ref. 264T) and equipment calibrated according to an ISO17025 Calibration Method (Ref. 265C)

GENERAL EQUIPMENT CALIBRATION SERVICE: In addition to its INAB Accredited Calibration Services, Reagecon offers a comprehensive range of traceable services across the entire range of laboratory equipment.

For further information please contact sales@reagecon.ie

Quality at Reagecon

Quality at Reagecon

The management and staff at Reagecon are committed to developing, manufacturing, testing and delivering high quality product in optimal condition. To optimise, formalise and underpin our quality systems, Reagecon have implemented the following quality systems.



ISO9001:2008

The Quality Management System (QMS) in Reagecon is structured around ISO9001:2008 and involves all personnel in all areas of the company. Reagecon have certification since 1990 and the system ensures a structured and systematic method of working in order to meet with, and where possible, exceed customer expectations.

ISO 17025

The Laboratory at Reagecon is accredited to ISO17025 by the National Accreditation Board for a number of test methods. This accreditation is a stringent, laboratory specific QMS (Quality Management system). The standard outlines all the requirements that testing laboratories must demonstrate to prove that they are technically competent and that the laboratory generates technically validated results. Reagecon have accreditation for various electrochemical test methods since 1990 and since this date they have continued to expand it to include other test methods (Ref. 264T).



ICP-MS/ ICP-OES Standards



Reagecon have been manufacturing Inorganic Standards, Controls and Calibrators for Spectroscopy for almost two decades. During that time, the company has established itself as the most reliable primary producer of top quality standards. Our customer base in over 80 countries is testament of our efforts to be leaders in a changing field where limits of detection and purity are becoming ever more demanding. Whether your application is ICP-MS, ICP-OES or whether you require a single element or multi-element mixture, our products are manufactured, tested and stabilised to such a high level, that they can be used on all of these instruments.

Controlled Environment

Reagecon's standards are manufactured in a highly controlled clean room environment using:

- High purity starting materials
- Ultra-pure water, specially treated for Mass Spectroscopy Standards
- High purity matrix materials
- Pre-leached and pre-cleaned bottles

Options

Reagecon offers more options than almost any other manufacturer.

- Up to 70 single element standards
- Many multi - element mix's
- Several matrices
- Concentration options
- Pack size options
- Customised Standards



All at the highest quality and at an affordable price.

Quality Control

All metal raw materials are assayed by titration and ICP-MS prior to manufacture. Separate CRM's are used to control or calibrate the titration and ICP-MS respectively. This dual process enables the assays to be cross-checked against each other, provides two layers of traceability and quantifies the combined level of impurities in the starting material. The product is then manufactured gravimetrically using the mass balance approach: 100% - sum of all impurities (w/w).

The assay of the final product is certified using the gravimetric result corrected for density. Prior to bottling, the finished product is again tested and verified using an ICP-MS instrument calibrated with appropriate CRM's.

Certification

Reagecon's ICP-MS and ICP-OES Standards are prepared gravimetrically on a weight/weight basis from the purest available raw materials on the market. Both solute and solvent are weighed on balances calibrated by Reagecon's engineers using OIML traceable weights. Reagecon holds ISO 17025 accreditation for calibration of laboratory balances (INAB ref: 265C). The resulting Balance Certificate of Calibration is issued in accordance with the requirements of ISO/IEC 17025.

Traceability

The content of the starting material for each single element or multi-element standard is established by titration. The resulting analysis is directly traceable to a relevant NIST standard where available. All of the resulting uncertainties of measurement are calculated according to EURACHEM/CITAC guidelines and reported as expanded uncertainties at the 95% confidence level. Reagecon have applied for ISO 17025 accreditation for several classes of titrimetric analysis relevant to the assay of Raw Materials, for the manufacture of ICP-MS and ICP-OES standards.

Verification of Raw Materials

The concentration of the target element of each raw material is then verified using a high performance state of the art calibrated ICP-MS instrument. The calibration of the ICP-MS is completed using high purity ISO Guide 34 certified reference materials or other internationally accepted materials (e.g. BAM from Germany). This verification procedure serves three distinct but critical purposes.

- It provides a completely independent check of the accuracy and validity of the titration assay.
- It provides traceability by comparison to a second reference, which is independent from the first Reference Material.
- It determines the level of trace elemental impurities in the starting raw materials.

Elemental Metallic Impurities

All Reagecon Standards are manufactured from the purest available raw materials. At least thirty-three starting materials are metals of > 99.999% purity. Several others are at least 99.995% pure. Most of the remaining metals or salts of metals are at least 99.99% pure. The level of impurities are quantified using ICP-MS and are measured and reported both on the starting materials and on the finished product. All of Reagecon's ICP-MS standards are manufactured in a Class 10,000 (ISO 7) clean room environment.



Final Assay & Result

Each batch of Reagecon's finalised ICP-MS standards are subjected to an assay on the instrument prior to bottling. This assay verifies the target element assay and verifies that the level of impurities have not changed significantly during the manufacturing process. The results are then reported and certified in mg/Kg and mg/L on the basis of weight and the density measurement of the standard. All of the volumetric, titrimetric and gravimetric functions are carried out under a highly regulated temperature regime, using equipment calibrated by Reagecon's engineers. Reagecon holds ISO 17025 accreditation for temperature calibration in the range of -196 to +1200°C (INAB ref: 265C). The density measurements are also highly temperature dependent and are carried out in Reagecon's specialised Density Laboratory. Reagecon is ISO 17025 Accredited, for density measurement using an Oscillating U-Tube Method in accordance with the ASTM D4052-09 method. The company is an extensive producer of density standards.

ICP - MS, ICP Single Element Standards

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

Product No.	Starting Material and its Purity %	Matrix	Conc µg/ml	Pack size
Boron				
PB1A7	H ₃ BO ₃ 99.99	H ₂ O	100	100ml
PB2A7	H ₃ BO ₃ 99.99	H ₂ O	1,000	100ml
PB2C7	H ₃ BO ₃ 99.99	H ₂ O	1,000	500ml
PB4A7	H ₃ BO ₃ 99.99	H ₂ O	10,000	100ml
Cadmium				
PCD1A2	Cd 99.999	2 - 5% HNO ₃ (v/v)	100	100ml
PCD2A2	Cd 99.999	2 - 5% HNO ₃ (v/v)	1,000	100ml
PCD2C2	Cd 99.999	2 - 5% HNO ₃ (v/v)	1,000	500ml
PCD4A2	Cd 99.999	2 - 5% HNO ₃ (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
Calcium				
PCA1A2	CaCO ₃ 99.995	2 - 5% HNO ₃ (v/v)	100	100ml
PCA2A2	CaCO ₃ 99.995	2 - 5% HNO ₃ (v/v)	1,000	100ml
PCA2C2	CaCO ₃ 99.995	2 - 5% HNO ₃ (v/v)	1,000	500ml
PCA4A2	CaCO ₃ 99.995	2 - 5% HNO ₃ (v/v)	10,000	100ml
PCA2A3	CaCO ₃ 99.995	2% HCl (v/v)	1,000	100ml
PCA2C3	CaCO ₃ 99.995	2% HCl (v/v)	1,000	500ml
PCA4A3	CaCO ₃ 99.995	2% HCl (v/v)	10,000	100ml
Cerium				
PCE1A2	CeO ₂ 99.99	2 - 5% HNO ₃ (v/v)	100	100ml
PCE2A2	CeO ₂ 99.99	2 - 5% HNO ₃ (v/v)	1,000	100ml
PCE2C2	CeO ₂ 99.99	2 - 5% HNO ₃ (v/v)	1,000	500ml
PCE4A2	CeO ₂ 99.99	2 - 5% HNO ₃ (v/v)	10,000	100ml
Cesium				
PCS1A2	CsCl 99.999	2 - 5% HNO ₃ (v/v)	100	100ml
PCS2A2	CsCl 99.999	2 - 5% HNO ₃ (v/v)	1,000	100ml
PCS2C2	CsCl 99.999	2 - 5% HNO ₃ (v/v)	1,000	500ml
PCS4A2	CsCl 99.999	2 - 5% HNO ₃ (v/v)	10,000	100ml
Chromium				
PCR1A2	Cr(NO ₃) ₃ .9H ₂ O 99.99+	2 - 5% HNO ₃ (v/v)	100	100ml
PCR2A2	Cr(NO ₃) ₃ .9H ₂ O 99.99+	2 - 5% HNO ₃ (v/v)	1,000	100ml
PCR2C2	Cr(NO ₃) ₃ .9H ₂ O 99.99+	2 - 5% HNO ₃ (v/v)	1,000	500ml
PCR4A2	Cr(NO ₃) ₃ .9H ₂ O 99.99+	2 - 5% HNO ₃ (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
Cobalt				
PCO1A2	Co 99.995	2 - 5% HNO ₃ (v/v)	100	100ml
PCO2A2	Co 99.995	2 - 5% HNO ₃ (v/v)	1,000	100ml
PCO2C2	Co 99.995	2 - 5% HNO ₃ (v/v)	1,000	500ml
PCO4A2	Co 99.995	2 - 5% HNO ₃ (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
Copper				
PCU1A2	Cu 99.999	2 - 5% HNO ₃ (v/v)	100	100ml
PCU2A2	Cu 99.999	2 - 5% HNO ₃ (v/v)	1,000	100ml
PCU2C2	Cu 99.999	2 - 5% HNO ₃ (v/v)	1,000	500ml
PCU4A2	Cu 99.999	2 - 5% HNO ₃ (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
Dysprosium				
PDY1A2	DY ₂ O ₃ 99.99+	2 - 5% HNO ₃ (v/v)	100	100ml
PDY2A2	DY ₂ O ₃ 99.99+	2 - 5% HNO ₃ (v/v)	1,000	100ml
PDY2C2	DY ₂ O ₃ 99.99+	2 - 5% HNO ₃ (v/v)	1,000	500ml
PDY4A2	DY ₂ O ₃ 99.99+	2 - 5% HNO ₃ (v/v)	10,000	100ml
Erbium				
PER1A2	Er ₂ O ₃ 99.99+	2 - 5% HNO ₃ (v/v)	100	100ml
PER2A2	Er ₂ O ₃ 99.99+	2 - 5% HNO ₃ (v/v)	1,000	100ml
PER2C2	Er ₂ O ₃ 99.99+	2 - 5% HNO ₃ (v/v)	1,000	500ml
PER4A2	Er ₂ O ₃ 99.99+	2 - 5% HNO ₃ (v/v)	10,000	100ml
Europium				
PEU1A2	Eu ₂ O ₃ 99.999	2 - 5% HNO ₃ (v/v)	100	100ml
PEU2A2	Eu ₂ O ₃ 99.999	2 - 5% HNO ₃ (v/v)	1,000	100ml
PEU2C2	Eu ₂ O ₃ 99.999	2 - 5% HNO ₃ (v/v)	1,000	500ml
PEU4A2	Eu ₂ O ₃ 99.999	2 - 5% HNO ₃ (v/v)	10,000	100ml
Gadolinium				
PGD1A2	Gd ₂ O ₃ 99.995	2 - 5% HNO ₃ (v/v)	100	100ml
PGD2A2	Gd ₂ O ₃ 99.995	2 - 5% HNO ₃ (v/v)	1,000	100ml
PGD2C2	Gd ₂ O ₃ 99.995	2 - 5% HNO ₃ (v/v)	1,000	500ml
PGD4A2	Gd ₂ O ₃ 99.995	2 - 5% HNO ₃ (v/v)	10,000	100ml
Gallium				
PGA1A2	Ga 99.999	2 - 5% HNO ₃ (v/v)	100	100ml
PGA2A2	Ga 99.999	2 - 5% HNO ₃ (v/v)	1,000	100ml
PGA2C2	Ga 99.999	2 - 5% HNO ₃ (v/v)	1,000	500ml
PGA4A2	Ga 99.999	2 - 5% HNO ₃ (v/v)	10,000	100ml
Germanium				
PGE1A7	Ge 99.999	1% HF + 5% HNO ₃ (v/v)	100	100ml
PGE2A7	Ge 99.999	1% HF + 5% HNO ₃ (v/v)	1,000	100ml
PGE2C7	Ge 99.999	1% HF + 5% HNO ₃ (v/v)	1,000	500ml
PGE4A7	Ge 99.999	1% HF + 5% HNO ₃ (v/v)	10,000	100ml
Gold				
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
Hafnium				
PHF1A3	Hf 99.9	1% HF + 5% HNO ₃ (v/v)	100	100ml
PHF2A3	Hf 99.9	1% HF + 5% HNO ₃ (v/v)	1,000	100ml
PHF2C3	Hf 99.9	1% HF + 5% HNO ₃ (v/v)	1,000	500ml
PHF4A3	Hf 99.9	1% HF + 5% HNO ₃ (v/v)	10,000	100ml

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

Product No.	Starting Material and its Purity %	Matrix	Conc µg/ml	Pack size
Magnesium				
PMG1A2	Mg 99.99	2 - 5% HNO ₃ (v/v)	100	100ml
PMG2A2	Mg 99.99	2 - 5% HNO ₃ (v/v)	1,000	100ml
PMG2C2	Mg 99.99	2 - 5% HNO ₃ (v/v)	1,000	500ml
PMG4A2	Mg 99.99	2 - 5% HNO ₃ (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
Manganese				
PMN1A2	Mn 99.98	2 - 5% HNO ₃ (v/v)	100	100ml
PMN2A2	Mn 99.98	2 - 5% HNO ₃ (v/v)	1,000	100ml
PMN2C2	Mn 99.98	2 - 5% HNO ₃ (v/v)	1,000	500ml
PMN4A2	Mn 99.98	2 - 5% HNO ₃ (v/v)	10,000	100ml
Mercury				
PHG1A6	Hg 99.999+	2 - 5% HNO ₃ (v/v)	100	100ml
PHG2A6	Hg 99.999+	2 - 5% HNO ₃ (v/v)	1,000	100ml
PHG2C6	Hg 99.999+	2 - 5% HNO ₃ (v/v)	1,000	500ml
PHG4A6	Hg 99.999+	2 - 5% HNO ₃ (v/v)	10,000	100ml
Molybdenum				
PMO1A7	Mo 99.999	2% NH ₄ OH (v/v)	100	100ml
PMO2A7	Mo 99.999	2% NH ₄ OH (v/v)	1,000	100ml
PMO2C7	Mo 99.999	2% NH ₄ OH (v/v)	1,000	500ml
PMO4A7	Mo 99.999	2% NH ₄ OH (v/v)	10,000	100ml
Neodymium				
PND1A2	Nd ₂ O ₃ 99.99	2 - 5% HNO ₃ (v/v)	100	100ml
PND2A2	Nd ₂ O ₃ 99.99	2 - 5% HNO ₃ (v/v)	1,000	100ml
PND2C2	Nd ₂ O ₃ 99.99	2 - 5% HNO ₃ (v/v)	1,000	500ml
PND4A2	Nd ₂ O ₃ 99.99	2 - 5% HNO ₃ (v/v)	10,000	100ml
Nickel				
PNI1A2	Ni 99.999	2 - 5% HNO ₃ (v/v)	100	100ml
PNI2A2	Ni 99.999	2 - 5% HNO ₃ (v/v)	1,000	100ml
PNI2C2	Ni 99.999	2 - 5% HNO ₃ (v/v)	1,000	500ml
PNI4A2	Ni 99.999	2 - 5% HNO ₃ (v/v)	10,000	100ml
Niobium				
PNB1A9	Nb 99.9+	1% HF + 5% HNO ₃ (v/v)	100	100ml
PNB2A9	Nb 99.9+	1% HF + 5% HNO ₃ (v/v)	1,000	100ml
PNB2C9	Nb 99.9+	1% HF + 5% HNO ₃ (v/v)	1,000	500ml
PNB4A9	Nb 99.9+	1% HF + 5% HNO ₃ (v/v)	10,000	100ml
Palladium				
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
Phosphorus				
PP1A7	NH ₄ H ₂ PO ₄ 99.999	0.05% H ₂ SO ₄ (v/v)	100	100ml
PP2A7	NH ₄ H ₂ PO ₄ 99.999	0.05% H ₂ SO ₄ (v/v)	1,000	100ml
PP2C7	NH ₄ H ₂ PO ₄ 99.999	0.05% H ₂ SO ₄ (v/v)	1,000	500ml
PP4A7	NH ₄ H ₂ PO ₄ 99.999	0.05% H ₂ SO ₄ (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
Potassium				
PK1A2	KNO ₃ 99.999	2 - 5% HNO ₃ (v/v)	100	100ml
PK2A2	KNO ₃ 99.999	2 - 5% HNO ₃ (v/v)	1,000	100ml
PK2C2	KNO ₃ 99.999	2 - 5% HNO ₃ (v/v)	1,000	500ml
PK4A2	KNO ₃ 99.999	2 - 5% HNO ₃ (v/v)	10,000	100ml
PK2A3	KCl 99.999	H ₂ O	1,000	100ml
PK2C3	KCl 99.999	H ₂ O	1,000	500ml
PK4A3	KCl 99.999	H ₂ O	10,000	100ml
Praseodymium				
PPR1A2	Pr ₆ O ₁₁ 99.999	5% HCl (v/v)	100	100ml
PPR2A2	Pr ₆ O ₁₁ 99.999	5% HCl (v/v)	1,000	100ml
PPR2C2	Pr ₆ O ₁₁ 99.999	5% HCl (v/v)	1,000	500ml
PPR4A2	Pr ₆ O ₁₁ 99.999	5% HCl (v/v)	10,000	100ml
Rhenium				
PRE1A7	NH ₄ ReO ₄ 99.999	H ₂ O	100	100ml
PRE2A7	NH ₄ ReO ₄ 99.999	H ₂ O	1,000	100ml
PRE2C7	NH ₄ ReO ₄ 99.999	H ₂ O	1,000	500ml
PRE4A7	NH ₄ ReO ₄ 99.999	H ₂ O	10,000	100ml
Rhodium				
PRH1A8	(NH ₄) ₃ RhCl ₆ 99.99	5% HCl (v/v)	100	100ml
PRH2A8	(NH ₄) ₃ RhCl ₆ 99.99	5% HCl (v/v)	1,000	100ml
PRH2C8	(NH ₄) ₃ RhCl ₆ 99.99	5% HCl (v/v)	1,000	500ml
PRH4A8	(NH ₄) ₃ RhCl ₆ 99.99	5% HCl (v/v)	10,000	100ml
Rubidium				
PRB1A2	RbNO ₃ 99.99	2 - 5% HNO ₃ (v/v)	100	100ml
PRB2A2	RbNO ₃ 99.99	2 - 5% HNO ₃ (v/v)	1,000	100ml
PRB2C2	RbNO ₃ 99.99	2 - 5% HNO ₃ (v/v)	1,000	500ml
PRB4A2	RbNO ₃ 99.99	2 - 5% HNO ₃ (v/v)	10,000	100ml
Ruthenium				
PRU1A8	(NH ₄) ₃ RuCl ₆ 99.99	5% HCl (v/v)	100	100ml
PRU2A8	(NH ₄) ₃ RuCl ₆ 99.99	5% HCl (v/v)	1,000	100ml
PRU2C8	(NH ₄) ₃ RuCl ₆ 99.99	5% HCl (v/v)	1,000	500ml
PRU4A8	(NH ₄) ₃ RuCl ₆ 99.99	5% HCl (v/v)	10,000	100ml
Samarium				
PSM1A2	Sm ₂ O ₃ 99.99	2 - 5% HNO ₃ (v/v)	100	100ml
PSM2A2	Sm ₂ O ₃ 99.99	2 - 5% HNO ₃ (v/v)	1,000	100ml
PSM2C2	Sm ₂ O ₃ 99.99	2 - 5% HNO ₃ (v/v)	1,000	500ml
PSM4A2	Sm ₂ O ₃ 99.99	2 - 5% HNO ₃ (v/v)	10,000	100ml
Scandium				
PSC1A2	Sc ₂ O ₃ 99.999	2 - 5% HNO ₃ (v/v)	100	100ml
PSC2A2	Sc ₂ O ₃ 99.999	2 - 5% HNO ₃ (v/v)	1,000	100ml
PSC2C2	Sc ₂ O ₃ 99.999	2 - 5% HNO ₃ (v/v)	1,000	500ml
PSC4A2	Sc ₂ O ₃ 99.999	2 - 5% HNO ₃ (v/v)	10,000	100ml
Selenium				
PSE1A2	Se 99.999	2 - 5% HNO ₃ (v/v)	100	100ml
PSE2A2	Se 99.999	2 - 5% HNO ₃ (v/v)	1,000	100ml
PSE2C2	Se 99.999	2 - 5% HNO ₃ (v/v)	1,000	500ml
PSE4A2	Se 99.999	2 - 5% HNO ₃ (v/v)	10,000	100ml

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

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

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

ICP - MS, ICP Multi-Element Standards

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Multi-Element Tuning Standard, 33 Elements				
REICPTUNE33A	Ag	5	20% HCl, tr. HF	100ml
	As	20		
	Ba	5		
	Be	20		
	Bi	5		
	Cd	20		
	Co	5		
	Cr	5		
	Cu	5		
	Ge	10		
	In	5		
	Ir	5		
	Li	5		
	Lu	5		
	Mg	10		
	Mn	5		
	Mo	10		
	Na	5		
	Ni	10		
	Pb	10		
	Pd	10		
	Ru	10		
	Sb	10		
	Sc	5		
	Sn	10		
	Sr	5		
	Tb	2.5		
	Th	5		
	Ti	5		
	Tl	5		
	U	5		
	V	5		
	Y	2.5		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Multi-Element Calibration Standard, 29 Elements				
REICPCAL29A	Ag	10	2-5% HNO ₃	100ml
	Al	10		
	As	100		
	B	100		
	Ba	10		
	Be	100		
	Bi	10		
	Ca	1000		
	Cd	10		
	Co	10		
	Cr	10		
	Cu	10		
	Fe	100		
	Ga	10		
	K	10		
	Li	10		
	Mg	10		
	Mn	10		
	Mo	10		
	Na	10		
	Ni	10		
	Pb	10		
	Rb	10		
	Se	100		
	Sr	10		
	Te	10		
	Tl	10		
	U	10		
	V	10		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Multi-Element Calibration Standard, 26 Elements				
REICPCAL26A	Ag	10	2-5% HNO ₃	100ml
	Al	10		
	As	10		
	Ba	10		
	Be	10		
	Ca	10		
	Cd	10		
	Co	10		
	Cr	10		
	Cs	10		
	Cu	10		
	Fe	10		
	Ga	10		
	K	10		
	Li	10		
	Mg	10		
	Mn	10		
	Na	10		
	Ni	10		
	Pb	10		
	Rb	10		
	Se	10		
	Sr	10		
	Tl	10		
	U	10		
	V	10		
Multi-Element Tuning Standard, 25 Elements				
REICPTUNE25A	Ag	10	5% HNO ₃ , tr. HF, tr. Tart. Acid	100ml
	Al	10		
	As	10		
	Ba	10		
	Be	10		
	Ca	1000		
	Cd	10		
	Co	10		
	Cr	10		
	Cu	10		
	Fe	1000		
	K	1000		
	Mg	1000		
	Mn	10		
	Mo	10		
	Na	1000		
	Ni	10		
	Pb	10		
	Sb	10		
	Se	10		
	Sr	10		
	Ta	10		
	Th	10		
	U	10		
	V	10		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Multi-Element Verification Standard, 24 Elements according to Test Method 200.8				
REICPVER24A	Ag	10	2-5% HNO ₃	100ml
	Al	10		
	As	10		
	Ba	10		
	Be	10		
	Ca	10		
	Cd	10		
	Co	10		
	Cr	10		
	Cu	10		
	Fe	10		
	K	10		
	Mg	10		
	Mn	10		
	Mo	10		
	Na	10		
	Ni	10		
	Pb	10		
	Sb	10		
	Se	10		
	Th	10		
	Tl	10		
	U	10		
	V	10		
Multi-Element Tuning Standard, 23 Elements				
REICPTUNE23A	Al	100	2-5% HNO ₃	100ml
	B	100		
	Ba	100		
	Be	100		
	Bi	100		
	Ca	100		
	Cd	100		
	Co	100		
	Cr	100		
	Cu	100		
	Fe	100		
	Ga	100		
	K	100		
	Li	100		
	Mg	100		
	Mn	100		
	Na	100		
	Ni	100		
	Pb	100		
	Se	100		
	Sr	100		
	Te	100		
	Tl	100		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
ICP Multi-Element Standard, 23 Elements				
ICP23A20	As	100	5% HNO ₃ , 0.2% HF	100ml
	Be	100		
	Ca	100		
	Cd	100		
	Co	100		
	Cr	100		
	Cu	100		
	Fe	100		
	Li	100		
	Mg	100		
	Mn	100		
	Mo	100		
	Ni	100		
	P	100		
	Pb	100		
	Sb	100		
	Se	100		
	Sn	100		
	Sr	100		
	Ti	100		
	TL	100		
	V	100		
	Zn	100		
Multi-Element Tuning Standard, 22 Elements				
REICPTUNE22A	As	50	2-5% HNO ₃	100ml
	B	100		
	Ba	50		
	Be	20		
	Bi	10		
	Ca	35000		
	Cd	20		
	Co	25		
	Cr	20		
	Cu	20		
	Fe	100		
	K	3000		
	Mg	15000		
	Mn	30		
	Mo	100		
	Na	8000		
	Ni	50		
	Pb	25		
	Se	10		
	Sr	100		
	Tl	10		
	V	50		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Multi-Element Tuning Standard, 22 Elements				
REICPTUNE22B	Ag	1000	2-5% HNO ₃	100ml
	Al	1000		
	B	1000		
	Ba	1000		
	Bi	1000		
	Ca	1000		
	Cd	1000		
	Co	1000		
	Cr	1000		
	Cu	1000		
	Fe	1000		
	Ga	1000		
	In	1000		
	K	1000		
	Li	1000		
	Mg	1000		
	Mn	1000		
	Na	1000		
	Ni	1000		
	Pb	1000		
	Sr	1000		
	Ti	1000		
Multi-Element Calibration Standard, 21 Elements according to Test Method 200.7				
REICPCAL21A	Ag	50	5% HNO ₃	100ml
	As	500		
	B	200		
	Ba	200		
	Be	200		
	Ca	1000		
	Cd	200		
	Ce	200		
	Co	200		
	Cr	200		
	Cu	200		
	K	1000		
	Mg	1000		
	Mn	200		
	Ni	200		
	P	1000		
	Pb	200		
	Se	500		
	Sr	200		
	Tl	500		
	V	200		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Multi-Element Verification Standard, 21 Elements according to Test Method 200.7				
REICPVER21A	Ag	100	5% HNO ₃	100ml
	As	100		
	B	100		
	Ba	100		
	Be	100		
	Ca	100		
	Cd	100		
	Ce	100		
	Co	100		
	Cr	100		
	Cu	100		
	Hg	100		
	Mg	100		
	Mn	100		
	Ni	100		
	P	100		
	Pb	100		
	Se	100		
	Sr	100		
	Tl	100		
	V	100		
Multi-Element Verification Standard, 21 Elements according to Test Method 200.7				
REICPVER21B	Ag	20	5% HNO ₃	100ml
	As	100		
	B	100		
	Ba	100		
	Be	100		
	Ca	100		
	Cd	100		
	Ce	100		
	Co	100		
	Cr	100		
	Cu	100		
	K	500		
	Mg	100		
	Mn	100		
	Ni	100		
	P	500		
	Pb	100		
	Se	100		
	Sr	100		
	Tl	100		
	V	100		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Multi-Element Calibration Standard, 20 Elements according to Test Method 6020				
REICPCAL20A	Ag	10	2% HNO ₃ , tr.	100ml
	As	10	Tart. Acid	
	Ba	10		
	Be	10		
	Ca	10		
	Cd	10		
	Co	10		
	Cr	10		
	Cu	10		
	Fe	10		
	K	10		
	Mg	10		
	Mn	10		
	Na	10		
	Ni	10		
	Pb	10		
	Sb	10		
	Se	10		
	Tl	10		
	V	10		
Multi-Element Verification Standard, 20 Elements				
REICPVER20A	As	100	5% HNO ₃ , tr. HF,	100ml
	Be	100	tr. Tart. Acid	
	Ca	100		
	Cd	100		
	Co	100		
	Cr	100		
	Cu	100		
	Fe	100		
	Li	100		
	Mg	100		
	Mn	100		
	Mo	100		
	Ni	100		
	Pb	100		
	Sb	100		
	Se	100		
	Sr	100		
	Ti	100		
	Tl	100		
	V	100		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Multi-Element Calibration Standard, 19 Elements				
REICPCAL19A	Ag	10	5% HNO ₃ , tr. HF, tr. Tart. Acid	100ml
	Al	10		
	As	10		
	Ba	10		
	Be	10		
	Cd	10		
	Co	10		
	Cu	10		
	Fe	1000		
	Mg	1000		
	Mn	10		
	Na	1000		
	Pb	10		
	Sb	10		
	Sr	10		
	Th	10		
	Tl	10		
	U	10		
	V	10		
ICP Multi-Element Standard, 19 Elements				
ICP-HR-195	AL	100	2-5% HNO ₃	500ml
	As	100		
	Ba	100		
	Bi	100		
	Ca	100		
	Cd	100		
	Co	100		
	Cr	100		
	Cu	100		
	Mg	100		
	Mn	100		
	Mo	100		
	K	100		
	Pb	100		
	Ni	100		
	Se	100		
	Ti	100		
	V	100		
	Zn	100		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
ICP Multi-Element Standard, 19 Elements				
ICP19A10	AL	100	2% HNO ₃	100ml
	Ba	5		
	Be	1		
	Bi	200		
	B	15		
	Cd	20		
	Cr	25		
	Co	20		
	Cu	30		
	Ga	150		
	In	200		
	Fe	15		
	Pb	200		
	Mn	5		
	Ni	50		
	Ag	50		
	Sr	1		
	Tl	40		
	Zn	20		
ICP Multi-Element Standard, 18 Elements				
ICP-JM-ME4A	AL	8	5% HCl	500ml
	Ca	4		
	Ce	4		
	Co	4		
	Cr	4		
	Cu	4		
	Fe	4		
	Ni	4		
	P	4		
	S	4		
	Zn	4		
	K	4		
	La	4		
	Si	4		
	Mg	1.6		
	Mn	1.6		
	Na	1.6		
	Pd	1.6		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
ICP Multi-Element Standard, 18 Elements				
ICP-JM-ME10A	Al	20	5% HCl	500ml
	Ca	10		
	Ce	10		
	Co	10		
	Cr	10		
	Cu	10		
	Fe	10		
	Ni	10		
	P	10		
	S	10		
	Zn	10		
	K	10		
	La	10		
	Si	10		
	Mg	4		
	Mn	4		
	Na	4		
	Pd	4		
Multi-Element Verification Standard, 18 Elements				
REICPVER18A	As	100	5% HNO ₃ , tr. HF, tr. Tart. Acid	100ml
	Be	100		
	Ca	100		
	Cd	100		
	Co	100		
	Cr	100		
	Cu	100		
	Fe	100		
	Mg	100		
	Mn	100		
	Mo	100		
	Ni	100		
	Pb	100		
	Sb	100		
	Se	100		
	Th	100		
	Tl	100		
	V	100		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Multi-Element Verification Standard, 17 Elements according to Test Method 6010				
REICPVER17A	Ag	10	5% HNO ₃ , tr. HF, tr. Tart. Acid	100ml
	Al	200		
	As	15		
	Ba	200		
	Be	5		
	Cd	5		
	Co	50		
	Cr	10		
	Cu	25		
	Fe	100		
	Mn	15		
	Ni	40		
	Pb	10		
	Sb	60		
	Se	35		
	Tl	25		
	V	50		
Multi-Element Spiking Standard, 17 Elements				
REICPSPIK17A	Ag	25	5% HNO ₃ , tr. HF, tr. Tart. Acid	100ml
	Al	2000		
	As	1000		
	Ba	1000		
	Be	25		
	Cd	25		
	Co	100		
	Cr	200		
	Fe	2000		
	Mn	200		
	Mo	200		
	Ni	200		
	Pb	200		
	Sb	200		
	Se	1000		
	Tl	200		
	V	200		
Multi-Element Calibration Standard, 17 Elements according to Test Method 200.8				
REICPCAL17A	Al	10	5% HNO ₃ , tr. Tart. Acid	100ml
	As	10		
	Be	10		
	Cd	10		
	Co	10		
	Cr	10		
	Cu	10		
	Mn	10		
	Mo	10		
	Ni	10		
	Pb	10		
	Sb	10		
	Se	10		
	Th	10		
	Tl	10		
	U	10		
	V	10		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Multi-Element Calibration Standard, 17 Elements according to Test Method 200.8				
REICPCAL17B	Al	10	5% HNO ₃ ,	100ml
	As	10	tr. Tart. Acid	
	Be	10		
	Cd	10		
	Co	10		
	Cr	10		
	Cu	10		
	Mn	10		
	Mo	10		
	Ni	10		
	Pb	10		
	Sb	10		
	Se	50		
	Th	10		
	Tl	10		
	U	10		
	V	10		
Multi-Element Calibration Standard, 17 Elements				
REICPCAL17C	Ce	10	2-5% HNO ₃	100ml
	Dy	10		
	Er	10		
	Eu	10		
	Gd	10		
	Ho	10		
	La	10		
	Lu	10		
	Nd	10		
	Pr	10		
	Sc	10		
	Sm	10		
	Tb	10		
	Th	10		
	Tm	10		
	U	10		
	Y	10		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Multi-Element Calibration Standard, 17 Elements				
REICPCAL17D	Ag	100	2-5% HNO ₃	100ml
	Al	100		
	As	100		
	Ba	100		
	Be	100		
	Cd	100		
	Co	100		
	Cr	100		
	Cu	100		
	Mn	100		
	Ni	100		
	Pb	100		
	Se	100		
	Th	100		
	Tl	100		
	U	100		
	V	100		
Multi-Element Calibration Standard, 17 Elements according to Test Method 200.8				
REICPCAL17E	Ag	20	2-5% HNO ₃	100ml
	Al	20		
	As	20		
	Ba	20		
	Be	20		
	Cd	20		
	Co	20		
	Cr	20		
	Cu	20		
	Mn	20		
	Ni	20		
	Pb	20		
	Se	20		
	Th	20		
	Tl	20		
	U	20		
	V	20		
Multi-Element Calibration Standard, 17 Elements according to Test Method 200.8				
REICPCAL17F	Al	10	5% HNO ₃ , tr. Tart. Acid	100ml
	As	10		
	Be	10		
	Cd	10		
	Co	10		
	Cr	10		
	Mg	10		
	Mn	10		
	Mo	10		
	Ni	10		
	Pb	10		
	Sb	10		
	Se	10		
	Th	10		
	Tl	10		
	U	10		
	V	10		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Multi-Element Verification Standard, 16 Elements				
REICPVER16A	Ag	10	5% HNO ₃ , tr. Tart. Acid	100ml
	Al	300		
	As	10		
	Ba	100		
	Be	10		
	Cd	10		
	Co	5		
	Cr	20		
	Cu	20		
	Mn	5		
	Ni	10		
	Pb	10		
	Sb	20		
	Se	50		
	Ta	10		
	V	10		
Multi-Element Interference Standard, 16 Elements according to Test Method 05.2				
REICPINTF16A	Ag	10	5% HNO ₃ , tr. Tart. Acid	100ml
	Al	10		
	As	10		
	Ba	10		
	Be	10		
	Cd	10		
	Co	10		
	Cr	10		
	Cu	10		
	Mn	10		
	Ni	10		
	Pb	10		
	Sb	10		
	Se	10		
	Tl	10		
	V	10		
Multi-Element Interference Standard, 16 Elements according to Test Method 200.7				
REICPINTF16B	Ag	300	5% HNO ₃	100ml
	As	1000		
	Ba	300		
	Be	100		
	Ca	300		
	Co	300		
	Cr	300		
	Cu	300		
	Hg	50		
	K	20000		
	Mn	200		
	Ni	300		
	Pb	1000		
	Se	500		
	Tl	1000		
	V	1000		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Multi-Element Calibration Standard, 16 Elements				
REICPCAL16A	Ag	10	2-5% HNO ₃	100ml
	Al	10		
	Ca	10		
	Co	10		
	Cr	10		
	Cs	10		
	Cu	10		
	Fe	10		
	K	10		
	Li	10		
	Mg	10		
	Mn	10		
	Na	10		
	Ni	10		
	Rb	10		
	Sr	10		
Multi-Element Calibration Standard, 16 Elements				
REICPCAL16B	Al	100	2-5% HNO ₃	100ml
	As	100		
	Ba	100		
	Be	100		
	Bi	100		
	Ca	100		
	Cs	100		
	Ga	100		
	In	100		
	K	100		
	Li	100		
	Mg	100		
	Na	100		
	Rb	100		
	Se	100		
	Sr	100		
Multi-Element Calibration Standard, 16 Elements				
REICPCAL16C	Ce	100	2-5% HNO ₃	100ml
	Dy	100		
	Er	100		
	Gd	100		
	Ho	100		
	La	100		
	Lu	100		
	Nd	100		
	Pr	100		
	Sc	100		
	Sm	100		
	Tb	100		
	Th	100		
	Tm	100		
	U	100		
	Y	100		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Multi-Element Calibration Standard, 16 Elements				
REICPCAL16D	Ce	10	2-5% HNO ₃	100ml
	Dy	10		
	Er	10		
	Eu	10		
	Gd	10		
	Ho	10		
	La	10		
	Lu	10		
	Nd	10		
	Pr	10		
	Sc	10		
	Sm	10		
	Tb	10		
	Th	10		
	Tm	10		
	Y	10		
Multi-Element Verification Standard, 16 Elements				
REICPVER16B	Ag	10	HNO ₃ tr. HF	100ml
	Al	10		
	As	10		
	Ba	10		
	Be	10		
	Cd	10		
	Co	10		
	Cr	10		
	Cu	10		
	Mn	10		
	Ni	10		
	Pb	10		
	Sb	10		
	Se	10		
	Tl	10		
	V	10		
Multi-Element Calibration Standard, 15 Elements according to Test Method 200.8				
REICPCAL15B	Al	10	5% HNO ₃ , tr. Tart. Acid	100ml
	As	10		
	Be	10		
	Cd	10		
	Co	10		
	Mn	10		
	Mo	10		
	Ni	10		
	Pb	10		
	Sb	10		
	Se	10		
	Th	10		
	Tl	10		
	U	10		
	V	10		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Multi-Element Interference Standard, 15 Elements according to Test Method 6010				
REICPINTF15A	Ag	20	5% HNO ₃ , tr. Tart. Acid	100ml
	As	10		
	Ba	50		
	Be	50		
	Cd	100		
	Co	50		
	Cr	50		
	Cu	50		
	Mn	50		
	Ni	100		
	Pb	5		
	Sb	60		
	Se	5		
	Tl	10		
	V	50		
Multi-Element Tuning Standard, 15 Elements				
REICPTUNE15A	B	10	HNO ₃ tr. HCl	100ml
	Ba	10		
	Co	10		
	Fe	10		
	Ga	10		
	In	10		
	K	10		
	Li	10		
	Lu	10		
	Na	10		
	Rh	10		
	Sc	10		
	Th	10		
	U	10		
	Y	10		
Multi-Element Calibration Standard, 15 Elements				
REICPCAL15A	Ag	250	2-5% HNO ₃	100ml
	Al	2000		
	Ba	2000		
	Be	50		
	Ca	5000		
	Co	500		
	Cr	200		
	Cu	250		
	Fe	1000		
	K	5000		
	Mg	5000		
	Mn	500		
	Na	5000		
	Ni	500		
	V	500		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Multi-Element Interference Standard, 15 Elements according to Test Method 200.7				
REICPINTF15B	Ag	300	2-5% HNO ₃	100ml
	As	1000		
	Ba	300		
	Be	100		
	Cd	300		
	Co	300		
	Cr	300		
	Cu	300		
	K	20000		
	Mn	200		
	Ni	300		
	Pb	1000		
	Se	500		
	Tl	1000		
	V	300		
ICP Multi-Element Standard, 15 Elements				
ICP15A10	AL	100	2-5% HNO ₃	100ml
	Ba	100		
	Ca	100		
	Cd	100		
	Co	100		
	Cr	100		
	Cu	100		
	Fe	100		
	Mg	100		
	Mn	100		
	Na	100		
	Ni	100		
	Pb	100		
	Ti	100		
	Zn	100		
Multi-Element Verification Standard, 14 Elements				
REICPVER14A	Ag	20	5% HNO ₃ , tr. Tart. Acid	100ml
	As	20		
	Be	10		
	Cd	10		
	Co	100		
	Cr	20		
	Cu	50		
	Mn	30		
	Ni	80		
	Pb	6		
	Sb	120		
	Se	10		
	Tl	20		
	V	100		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Multi-Element Calibration Standard, 14 Elements				
REICPCAL14A	Al	500	5% HNO ₃	100ml
	As	100		
	Be	100		
	Cd	25		
	Co	100		
	Cr	100		
	Cu	100		
	Fe	100		
	Hg	100		
	Mn	100		
	Ni	100		
	Pb	100		
	Se	25		
	V	250		
Multi-Element Calibration Standard, 14 Elements				
REICPCAL14B	B	100	HNO ₃ , tr. HF	100ml
	Ge	100		
	Hf	100		
	Mo	100		
	Nb	100		
	P	100		
	Re	100		
	S	100		
	Sb	100		
	Si	100		
	Sn	100		
	Ta	100		
	Ti	100		
	W	100		
Multi-Element Calibration Standard, 14 Elements				
REICPCAL14C	Al	5	HNO ₃ , tr. HF	100ml
	As	5		
	Ba	5		
	Cd	5		
	Co	5		
	Cr	5		
	Cu	5		
	K	50		
	Mn	5		
	Mo	5		
	Ni	5		
	Pb	5		
	Se	5		
	Sr	5		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Multi-Element Calibration Standard, 14 Elements				
REICPCAL14D	Al	50	2-5% HNO ₃	100ml
	As	50		
	Ba	50		
	Cd	50		
	Co	50		
	Cr	50		
	Cu	50		
	K	500		
	Mn	50		
	Mo	50		
	Ni	50		
	Pb	50		
	Se	50		
	Sr	50		
Multi-Element Calibration Standard, 13 Elements				
REICPCAL13A	As	10	2-5% HNO ₃	100ml
	B	10		
	Ba	10		
	Be	10		
	Bi	10		
	Cd	10		
	Ga	10		
	In	10		
	Pb	10		
	Sb	10		
	Se	10		
	Tl	10		
	V	10		
Multi-Element Calibration Standard, 13 Elements				
REICPCAL13B	Al	500	2-5% HNO ₃	100ml
	As	100		
	Be	100		
	Cd	25		
	Co	100		
	Cr	100		
	Cu	100		
	Fe	100		
	Mn	100		
	Ni	100		
	Pb	100		
	Se	25		
	V	250		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Multi-Element Calibration Standard, 12 Elements				
REICPCAL12A	Ag	100	2-5% HNO ₃	100ml
	Cd	100		
	Co	100		
	Cr	100		
	Cu	100		
	Fe	100		
	Hg	100		
	Mn	100		
	Ni	100		
	Pb	100		
	Tl	100		
	V	100		
Multi-Element Tuning Standard, 12 Elements				
REICPTUNE12A	Ba	10	2-5% HNO ₃	100ml
	Be	10		
	Ce	10		
	Co	10		
	In	10		
	Li	10		
	Mg	10		
	Pb	10		
	Rh	10		
	Tl	10		
	U	10		
	Y	10		
Tuning Solution 3, 12 Elements				
REICPTUNE3	Ba	10	5% HNO ₃	100ml
	Be	10		
	Ce	10		
	Co	10		
	In	10		
	Li	10		
	Mg	10		
	Pb	10		
	Rh	10		
	Tl	10		
	U	10		
	Y	10		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Multi-Element Tuning Standard, 11 Elements				
REICPTUNE11A	Ba	10	5% HNO ₃	100ml
	Be	10		
	Ce	10		
	Co	10		
	In	10		
	Li	10		
	Mg	10		
	Pb	10		
	Tb	10		
	U	10		
	Y	10		
Multi-Element Verification Standard, 11 Elements				
REICPVER11A	Ag	100	5% HNO ₃	100ml
	Ba	500		
	Be	200		
	Cd	250		
	Co	500		
	Cu	500		
	Fe	500		
	Mn	500		
	Ni	500		
	Pb	500		
	Tl	500		
Multi-Element Verification Standard, 11 Elements according to Test Method 6020				
REICPVER11B	Ag	20	5% HNO ₃	100ml
	Ba	100		
	Be	40		
	Cd	50		
	Co	100		
	Cu	100		
	Fe	100		
	Mn	100		
	Ni	100		
	Pb	100		
	Tl	100		
Multi-Element Interference Standard, 11 Elements				
REICPINTF11A	Ag	100	2-5% HNO ₃	100ml
	Ba	50		
	Be	50		
	Cd	100		
	Co	50		
	Cr	50		
	Cu	50		
	Mn	50		
	Ni	100		
	Pb	100		
	V	50		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Multi-Element Calibration Standard, 10 Elements				
REICPCAL10A	Be	100	5% HNO ₃	100ml
	Co	20		
	In	10		
	Li	50		
	Mg	25		
	Sc	25		
	Tb	5		
	Tl	10		
	U	5		
	Y	10		
Multi-Element Interference Standard, 10 Elements according to Test Method 6020				
REICPINTF10A	Ag	5	2% HNO ₃	100ml
	As	10		
	Cd	10		
	Co	20		
	Cr	20		
	Cu	20		
	Mn	20		
	Ni	20		
	Se	10		
	V	20		
Multi-Element Spiking Standard, 10 Elements				
REICPSPIK10A	Ag	5	5% HNO ₃	100ml
	Be	5		
	Cd	5		
	Co	50		
	Cu	25		
	Fe	100		
	Mn	50		
	Ni	50		
	Pb	50		
	Ti	200		
Multi-Element Verification Standard, 10 Elements				
REICPVER10A	Ag	500	20% HCl	100ml
	As	500		
	Ca	5000		
	Cr	500		
	K	5000		
	Mg	5000		
	Na	5000		
	Sb	500		
	Se	500		
	V	500		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Multi-Element Verification Standard, 10 Elements according to Test Method 6010				
REICPVER10B	Ag	100	20% HCl	100ml
	As	100		
	Ca	1000		
	Cr	100		
	Mg	1000		
	Na	1000		
	P	1000		
	Sb	100		
	Se	100		
	V	100		
Multi-Element Calibration Standard, 10 Elements according to Test Method 6010				
REICPCAL10B	Ag	200	5% HNO ₃	100ml
	Ba	1000		
	Be	400		
	Cd	500		
	Co	1000		
	Fe	1000		
	Mn	1000		
	Ni	1000		
	Pb	1000		
	Tl	1000		
Multi-Element Calibration Standard, 10 Elements according to Test Method 6010				
REICPCAL10C	Al	1000	20% HCl	100ml
	As	1000		
	Ca	10000		
	Cr	1000		
	K	10000		
	Mg	10000		
	Na	10000		
	Sb	1000		
	Se	1000		
	V	1000		
Multi-Element Calibration Standard, 10 Elements				
REICPCAL10D	Al	20	2% HNO ₃ ,	100ml
	Be	5	tr. Tart. Acid	
	Co	10		
	Cu	10		
	Fe	20		
	Mn	10		
	Ni	10		
	Sb	5		
	Tl	5		
	V	20		
Multi-Element Calibration Standard, 10 Elements				
REICPCAL10E	Au	10	HCl, tr. HNO ₃	100ml
	Hf	10		
	Ir	10		
	Pd	10		
	Pt	10		
	Rh	10		
	Ru	10		
	Sb	10		
	Sn	10		
	Tb	10		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Multi-Element Calibration Standard, 10 Elements				
REICPCAL10F	As	20	HCl, tr. HNO ₃	100ml
	K	100		
	La	20		
	Li	20		
	Mn	20		
	Mo	20		
	Na	20		
	Ni	20		
	P	100		
	S	100		
	Sc	20		
Multi-Element Tuning Standard, 10 Elements				
REICPTUNE10A	Ba	10	2-5% HNO ₃	100ml
	Be	10		
	Bi	10		
	Ce	10		
	Co	10		
	In	10		
	Li	10		
	Ni	10		
	Pb	10		
	U	10		
Multi-Element Calibration Standard, 10 Elements according to Test Method 200.7				
REICPCAL10G	Ag	50	2-5% HNO ₃	100ml
	As	1000		
	B	100		
	Ba	100		
	Ca	1000		
	Cd	200		
	Cu	200		
	Mn	200		
	Se	500		
	Sr	100		
USP 232/233 Compliance 1, 10 Elements				
REICPUSP1	As	15	7% HNO ₃	100ml
	Cd	5		
	Cr	250		
	Cu	2500		
	Hg	15		
	Mn	2500		
	Mo	250		
	Ni	250		
	Pb	10		
	V	250		
Tuning Solution 5, 10 Elements				
REICPTUNE5	Ba	10	5% HNO ₃	100ml
	Be	10		
	Bi	10		
	Ce	10		
	Co	10		
	In	10		
	Li	10		
	Ni	10		
	Pb	10		
	U	10		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Multi-Element Interference Standard, 9 Elements according to Test Method 6020				
REICPINTF9A	Ag	10	5% HNO ₃ , tr. Tart. Acid	100ml
	Al	10		
	As	10		
	Co	10		
	Cr	10		
	Mn	10		
	Ni	10		
	Se	10		
	V	10		
Multi-Element Calibration Standard, 9 Elements				
REICPCAL10H	Be	10	2-5% HNO ₃	100ml
	Bi	10		
	Ce	10		
	Co	10		
	In	10		
	Mg	10		
	Ni	10		
	Pb	10		
	U	10		
Multi-Element Tuning Standard, 9 Elements				
REICPTUNE9A	Fe	10	HCl, tr. HNO ₃	100ml
	K	10		
	La	10		
	Mg	5		
	Mn	5		
	P	10		
	S	50		
	Sc	10		
	Ti	10		
Multi-Element Tuning Standard, 9 Elements				
REICPTUNE9B	Ba	10	2-5% HNO ₃	100ml
	Be	10		
	Ce	10		
	Co	10		
	In	10		
	Mg	10		
	Pb	10		
	Th	10		
	Tl	10		
ICP Multi-Element Standard, 9 Elements				
ICP-WY-95	K	1000	2% HNO ₃	500ml
	Ca	500		
	P	400		
	Na	240		
	Mg	100		
	Fe	10		
	Zn	6		
	Cu	1		
	Mn	1		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Tuning Solution 4, 9 Elements				
REICPTUNE4	Ba	10	2% HNO ₃	100ml
	Be	10		
	Ce	10		
	Co	10		
	In	10		
	Mg	10		
	Pb	10		
	Rh	10		
	U	10		
Internal Standard Mix 1, 8 Elements				
REICPIS1	Bi	100	10% HNO ₃	100ml
	Ge	100		
	In	100		
	Li	100		
	Lu	100		
	Rh	100		
	Sc	100		
	Tb	100		
Internal Standard Mix 3, 8 Elements				
REICPIS3	Bi	100	7% HNO ₃	100ml
	Ho	100		
	In	100		
	Li	100		
	Rh	100		
	Sc	100		
	Tb	100		
	Y	100		
ICP Multi-Element Standard, 8 Elements				
ICP-TG-85	Ca	50	0.1% HNO ₃	500ml
	K	13		
	Mg	10		
	Na	10		
	Cu	0.6		
	Zn	0.6		
	Mn	0.6		
	Fe	0.6		
Multi-Element Interference Standard, 8 Elements according to Test Method 6010				
REICPINTF8A	Be	50	5% HNO ₃	100ml
	Cd	100		
	Co	50		
	Cu	50		
	Mn	50		
	Ni	100		
	Pb	100		
	S	100		
Multi-Element Spiking Standard, 8 Elements				
REICPSPIK8B	B	1000	5% HNO ₃ , tr. HF	100ml
	Ca	10000		
	K	10000		
	Li	1000		
	Mg	10000		
	Na	10000		
	P	1000		
	Sr	1000		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Multi-Element Calibration Standard, 8 Elements				
REICPCAL8A	Ge	10	HCl tr. HNO ₃	100ml
	Hf	10		
	Mo	10		
	Nb	10		
	Sn	10		
	Ta	10		
	Ti	10		
	W	10		
Multi-Element Calibration Standard, 8 Elements				
REICPCAL8B	Au	10	10% HCl	100ml
	Ir	10		
	Pd	10		
	Pt	10		
	Re	10		
	Rh	10		
	Ru	10		
	Te	10		
Multi-Element Calibration Standard, 8 Elements				
REICPCAL8C	Ag	200	2-5% HNO ₃	100ml
	Be	100		
	Co	1000		
	Cr	200		
	Cu	500		
	Mn	300		
	Ni	800		
	V	1000		
Multi-Element Internal Standard, 7 Elements				
REICPIS7A	Bi	100	5% HNO ₃	100ml
	Ga	100		
	In	100		
	Li	100		
	Sc	100		
	Tb	100		
	Y	100		
Multi-Element Internal Standard, 7 Elements				
REICPIS7B	Bi	20	5% HNO ₃	100ml
	Ga	20		
	In	20		
	Li	100		
	Sc	100		
	Tb	20		
	Y	20		
Multi-Element Internal Standard, 7 Elements				
REICPIS7C	Bi	100	5% HNO ₃	100ml
	Ge	100		
	In	100		
	Li	100		
	Lu	100		
	Sc	100		
	Tb	100		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Multi-Element Spiking Standard, 7 Elements				
REICPSPIK7A	Al	200	20% HCl	100ml
	As	200		
	Ba	200		
	Cr	20		
	Sb	50		
	Se	200		
	V	50		
Multi-Element Internal Standard, 7 Elements according to Test Method 200.8				
REICPIS7D	Bi	10	5% HNO ₃	100ml
	In	10		
	Li	10		
	Lu	10		
	Sc	10		
	Te	10		
	Y	10		
Multi-Element Internal Standard, 7 Elements according to Test Method 6020				
REICPIS7E	Bi	10	2% HNO ₃	100ml
	Ho	10		
	In	10		
	Li	10		
	Sc	10		
	Tb	10		
	Y	10		
Multi-Element Verification Standard, 7 Elements				
REICPVER7A	Ag	100	5% HNO ₃ , tr. HF	100ml
	Al	100		
	B	100		
	Ba	100		
	K	1000		
	Na	100		
	Si	50		
Multi-Element Verification Standard, 7 Elements				
REICPVER7B	Ag	50	5% HNO ₃ , tr. HF	100ml
	Al	100		
	B	100		
	Ba	100		
	K	1000		
	Na	100		
	Si	500		
Multi-Element Calibration Standard, 7 Elements according to Test Methods 200.8 & 05.2				
REICPCAL7A	Ag	25	2% HNO ₃	100ml
	As	25		
	Ba	500		
	Cd	5		
	Cr	25		
	Pb	25		
	Se	5		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Multi-Element Calibration Standard, 7 Elements				
REICPCAL7B	Cr	10	2-5% HNO ₃	100ml
	Hf	100		
	Ir	100		
	Sb	100		
	Sn	100		
	Ta	100		
	Ti	100		
Multi-Element Calibration Standard, 7 Elements				
REICPCAL7C	As	100	2-5% HNO ₃	100ml
	Be	100		
	Cd	100		
	Ni	100		
	Pb	100		
	Se	100		
	Tl	100		
ICP Multi-Element Standard, 7 Elements				
ICP7A20	Ag	50	5% HNO ₃ , 0.2% HF	100ml
	AL	100		
	B	100		
	Ba	100		
	Na	100		
	K	1000		
	Si	500		
Multi-Element Tuning Standard, 6 Elements				
REICPTUNE6A	Ba	10	1% HNO ₃	100ml
	Ce	10		
	Co	10		
	In	10		
	Mg	10		
	Pb	10		
Multi-Element Calibration Standard, 6 Elements				
REICPCAL6A	Al	200	5% HNO ₃	100ml
	Ca	1000		
	Cr	20		
	K	400		
	Na	200		
	Ni	20		
Multi-Element Calibration Standard, 6 Elements				
REICPCAL6B	Ba	500	2% HNO ₃	100ml
	Ca	500		
	K	100		
	Mg	100		
	Mo	500		
	Na	500		
Multi-Element Calibration Standard, 6 Elements				
REICPCAL6C	Au	100	10% HCl	100ml
	Ir	100		
	Pd	100		
	Pt	100		
	Rh	100		
	Ru	100		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Multi-Element Calibration Standard, 6 Elements				
REICPCAL6D	Ir	100	15% HCl	100ml
	Os	100		
	Pd	100		
	Pt	100		
	Rh	100		
	Ru	100		
Multi-Element Calibration Standard, 6 Elements according to Test Method 200.7				
REICPCAL6E	Be	100	2-5% HNO ₃	100ml
	Fe	1000		
	Mg	1000		
	Ni	200		
	Pb	1000		
	Tl	500		
USP 232/233 Compliance 2, 6 Elements				
REICPUSP2	Ir	100	15% HCl	100ml
	Os	100		
	Pd	100		
	Pt	100		
	Rh	100		
	Ru	100		
Internal Standard Mix 2, 6 Elements				
REICPIS2	Bi	100	3% HNO ₃	100ml
	In	100		
	Li	100		
	Sc	100		
	Tb	100		
	Y	100		
ICP Multi-Element Standard, 5 Elements				
STD-GLO-5-500	Al	1000	6% HNO ₃	500ml
	Ca	1000		
	K	1000		
	Mg	1000		
	Na	1000		
ICP Multi-Element Standard, 5 Elements				
ICP-VL-51	Mg	1500	2% HNO ₃	100ml
	Fe	100		
	K	25		
	S	25		
	Mn	5		
Tuning Solution 6, 5 Elements				
REICPTUNE6	Ca	10	5% HNO ₃	100ml
	Fe	10		
	K	10		
	Li	10		
	Na	10		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Multi-Element Calibration Standard, 5 Elements according to Test Method 6020				
REICPCAL5A	Ca	2000	5% HNO ₃	100ml
	Fe	2000		
	K	2000		
	Mg	2000		
	Na	2000		
Multi-Element Interference Standard, 5 Elements according to Test Method 200.7				
REICPINTF5A	Al	1200	5% HNO ₃	100ml
	Ca	6000		
	Fe	5000		
	Mg	3000		
	Na	1000		
Multi-Element Calibration Standard, 5 Elements according to Test Method 200.7				
REICPCAL5D	Be	50	2% HNO ₃ , tr. HF	100ml
	Cd	150		
	Mn	100		
	Pb	500		
	Se	200		
Multi-Element Calibration Standard, 5 Elements according to Test Method 200.7				
REICPCAL5E	Ba	100	5% HNO ₃	100ml
	Co	100		
	Cu	100		
	Fe	10000		
	V	100		
Multi-Element Calibration Standard, 5 Elements according to Test Method 200.7				
REICPCAL5F	Ag	50	5% HNO ₃ , tr. Tart. Acid	100ml
	B	100		
	Mg	1000		
	Sb	200		
	Tl	200		
Multi-Element Tuning Standard, 5 Elements according to Test Methods 200.8 & 05.2				
REICPTUNE5C	Be	10	5% HNO ₃ , tr. Tart. Acid	100ml
	Co	10		
	In	10		
	Mg	10		
	Pb	10		
Multi-Element Calibration Standard, 5 Elements				
REICPCAL5H	Ca	1000	2-5% HNO ₃	100ml
	Fe	1000		
	K	1000		
	Mg	1000		
	Na	1000		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Multi-Element Calibration Standard, 5 Elements				
REICPCAL5I	Ca	500	2-5% HNO ₃	100ml
	Fe	500		
	K	500		
	Mg	500		
	Na	500		
Multi-Element Verification Standard, 5 Elements				
REICPVER5A	Be	10	2-5% HNO ₃	100ml
	Co	10		
	In	10		
	Ti	10		
	U	10		
Multi-Element Calibration Standard, 5 Elements				
REICPCAL5J	Ca	1000	2-5% HNO ₃	100ml
	Fe	1000		
	Li	1000		
	Tl	1000		
	Y	1000		
Multi-Element Tuning Standard, 5 Elements				
REICPTUNE5A	Ce	10	2-5% HNO ₃	100ml
	Co	10		
	Li	10		
	Tl	10		
	Y	10		
Multi-Element Calibration Standard, 5 Elements				
REICPCAL5K	Al	1000	2-5% HNO ₃	100ml
	Cd	500		
	Pb	1000		
	Se	1000		
	Tl	1000		
Multi-Element Calibration Standard, 5 Elements				
REICPCAL5L	As	500	2-5% HNO ₃	100ml
	Cd	250		
	Pb	500		
	Se	500		
	Tl	500		
Multi-Element Calibration Standard, 5 Elements				
REICPCAL5N	As	100	2-5% HNO ₃	100ml
	Cd	50		
	Pb	30		
	Se	50		
	Tl	100		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Multi-Element Calibration Standard, 5 Elements according to Test Method 200.7				
REICPCAL5O	K	2000	2-5% HNO ₃	100ml
	Li	500		
	Mo	1000		
	Na	1000		
	Ti	1000		
Multi-Element Calibration Standard, 5 Elements according to Test Method 200.7				
REICPCAL5P	Al	3000	2-5% HNO ₃	100ml
	Ca	15000		
	Fe	12500		
	Mg	7500		
	Na	2500		
Multi-Element Internal Standard, 5 Elements according to Test Method 200.8				
REICPIS5A	Bi	20	2-5% HNO ₃	100ml
	In	20		
	Sc	20		
	Tb	20		
	Y	20		
Multi-Element Tuning Standard, 5 Elements according to Test Method 200.8				
REICPTUNE5B	Be	10	2-5% HNO ₃	100ml
	Co	10		
	In	10		
	Mg	10		
	Pb	10		
Multi-Element Calibration Standard, 4 Elements				
REICPCAL4A	As	100	2% HNO ₃	100ml
	Cr	100		
	Fe	100		
	Se	100		
Multi-Element Calibration Standard, 4 Elements				
REICPCAL4B	Ca	100	5% HNO ₃	100ml
	Fe	100		
	K	100		
	Na	100		
Multi-Element Tuning Standard, 4 Elements				
REICPTUNE4A	Ce	10	5% HNO ₃	100ml
	Li	10		
	Tl	10		
	Y	10		
Multi-Element Calibration Standard, 4 Elements according to Test Method 200.8				
REICPCAL4N	Ca	1000	2% HNO ₃	100ml
	K	1000		
	Mg	1000		
	Na	1000		
Multi-Element Calibration Standard, 4 Elements according to Test Method 200.8				
REICPCAL4C	Ag	100	5% HNO ₃	100ml
	Ba	100	tr. Tart. Acid	
	Cu	100		
	Fe	100		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Multi-Element Calibration Standard, 4 Elements according to Test Method 200.8				
REICPCAL4D	Ca	10000	2% HNO ₃	100ml
	Mg	1000		
	Na	10000		
	P	1000		
Multi-Element Interference Standard, 4 Elements according to Test Method 6010				
REICPINTF4A	Al	5000	20% HCl	100ml
	Ca	5000		
	Fe	2000		
	Mg	5000		
Multi-Element Tuning Standard, 4 Elements according to Test Method 6020				
REIPTUNE4C	Co	10	5% HNO ₃	100ml
	In	10		
	Li	10		
	Ti	10		
Multi-Element Verification Standard, 4 Elements according to Test Method 200.7				
REICPVER4B	As	10	5% HNO ₃	100ml
	Pb	10		
	Se	10		
	Ti	10		
Multi-Element Calibration Standard, 4 Elements				
REICPCAL4E	Ca	500	2% HNO ₃	100ml
	K	100		
	Mg	100		
	Na	500		
Multi-Element Calibration Standard, 4 Elements				
REICPCAL4F	Ba	1000	2-5% HNO ₃	100ml
	Ca	1000		
	Mg	1000		
	Sr	1000		
Multi-Element Calibration Standard, 4 Elements				
REICPCAL4G	Cd	10	2-5% HNO ₃	100ml
	Cu	800		
	Ni	200		
	Pb	500		
Multi-Element Calibration Standard, 4 Elements				
REICPCAL4H	Ca	10000	2-5% HNO ₃	100ml
	K	10000		
	Mg	10000		
	Na	10000		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Multi-Element Calibration Standard, 4 Elements				
REICPCAL4I	Ca	1000	2-5% HNO ₃	100ml
	K	1000		
	Mg	1000		
	Na	1000		
Multi-Element Calibration Standard, 4 Elements according to Test Method 6010				
REICPCAL4J	Ca	5000	2-5% HNO ₃	100ml
	K	5000		
	Mg	5000		
	Na	5000		
Multi-Element Calibration Standard, 4 Elements				
REICPCAL4K	Mo	100	HNO ₃ tr. HF	100ml
	Sb	100		
	Sn	100		
	Ti	100		
Multi-Element Interference Standard, 4 Elements				
REICPINTF4C	Al	5000	2-5% HNO ₃	100ml
	Ca	5000		
	Fe	2000		
	Mg	5000		
Multi-Element Calibration Standard, 4 Elements according to Test Method 200.7				
REICPCAL4L	Ce	200	2-5% HNO ₃	100ml
	Co	200		
	P	1000		
	V	200		
Multi-Element Calibration Standard, 4 Elements according to Test Method 200.7				
REICPCAL4M	B	500	HNO ₃ , tr. HF	100ml
	Mo	300		
	Si	230		
	Ti	1000		
Multi-Element Calibration Standard, 4 Elements				
REICPCAL4N	Ce	10	2-5% HNO ₃	100ml
	Li	10		
	Tl	10		
	Y	10		
ICP Multi-Element Standard, 4 Elements				
ICP-LX-4-25	Sn	1	7% HCl	250ml
	Au	1		
	Pd	1		
	Rh	1		
Tuning Solution 2, 4 Elements				
REICPTUNE2	Ce	10	2% HNO ₃	100ml
	Li	10		
	Tl	10		
	Y	10		
Multi-Element Interference Standard, 3 Elements according to Test Method 6010				
REICPINTF3A	Ba	50	20% HCl	100ml
	Cr	50		
	V	50		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
Multi-Element Calibration Standard, 3 Elements according to Test Method 200.7				
REICPCAL3A	As	500	2% HNO ₃ , tr. HF	100ml
	Mo	100		
	Si	100		
Multi-Element Calibration Standard, 3 Elements				
REICPCAL3B	Au	100	10% HCl	100ml
	Pd	100		
	Pt	100		
Multi-Element Tuning Standard, 3 Elements				
REICPTUNE3A	Ce	10	1% HNO ₃ , 0.5% HCl	100ml
	Co	10		
	Li	10		
Multi-Element Calibration Standard, 3 Elements according to Test Method 200.7				
REICPCAL3C	Al	1000	2-5% HNO ₃	100ml
	Cr	500		
	Hg	200		
ICP Multi-Element Standard, 3 Elements				
ICP-PS-325M	Ga	50	5% HNO ₃ , 0.5% HCl	250ml
	Ir	10		
	Rh	10		
Multi-Element Tuning Standard, 2 Elements according to Test Method 200.7				
REICPTUNE2A	Cu	10	5% HNO ₃	100ml
	Pb	10		
Multi-Element Calibration Standard, 2 Elements according to Test Method 200.8				
REICPCAL2A	Mo	20	HNO ₃ tr. HF	100ml
	Sb	20		
ICP Multi-Element Standard, 2 Elements				
ICP-HR-25	S	100	H ₂ O	500ml
	Si	100		

Ion Chromatography Standards



These standards are prepared, tested, certified and verified by following the exact same regime as already presented for ICP-MS Standards. The raw material specifications are in most cases identical to the materials used for ICP-MS. Additionally, the elemental anions and cations are also analysed by ICP-MS. All results are verified on a state of the art Ion Chromatograph, which is calibrated using high purity ISO Guide 34 accredited standards, similar in concentration to the products listed below.

Anion Standards

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

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

Cation Standards

Product No.	Ion	Starting Material	Matrix	Concentration	Pack size
Aluminium					
ICCU06	Al ⁴⁺	Al(NO ₃) ₃	H ₂ O	0.1mg/ml (100ppm)	100ml
ICCS06	Al ⁴⁺	Al(NO ₃) ₃	H ₂ O	1mg/ml (1,000ppm)	100ml
ICCB06	Al ⁴⁺	Al(NO ₃) ₃	H ₂ O	1mg/ml (1,000ppm)	500ml
Ammonium					
ICCU01	NH ₄ ⁺	NH ₄ Cl	H ₂ O	0.1mg/ml (100ppm)	100ml
ICCS01	NH ₄ ⁺	NH ₄ Cl	H ₂ O	1mg/ml (1,000ppm)	100ml
ICCB01	NH ₄ ⁺	NH ₄ Cl	H ₂ O	1mg/ml (1,000ppm)	500ml
Barium					
ICCU44	Ba ²⁺	Ba(NO ₃) ₂	H ₂ O	0.1mg/ml (100ppm)	100ml
ICCS44	Ba ²⁺	Ba(NO ₃) ₂	H ₂ O	1mg/ml (1,000ppm)	100ml
ICCB44	Ba ²⁺	Ba(NO ₃) ₂	H ₂ O	1mg/ml (1,000ppm)	500ml
Cadmium					
ICCU09	Cd ⁺	Cd Metal	0.005% HNO ₃	0.1mg/ml (100ppm)	100ml
ICCS09	Cd ⁺	Cd Metal	0.005% HNO ₃	1mg/ml (1,000ppm)	100ml
ICCB09	Cd ⁺	Cd Metal	0.005% HNO ₃	1mg/ml (1,000ppm)	500ml

Product No.	Ion	Starting Material	Matrix	Concentration	Pack size
Calcium					
ICCU08	Ca ²⁺	Ca(NO ₃) ₂	H ₂ O	0.1mg/ml (100ppm)	100ml
ICCS08	Ca ²⁺	Ca(NO ₃) ₂	H ₂ O	1mg/ml (1,000ppm)	100ml
ICCB08	Ca ²⁺	Ca(NO ₃) ₂	H ₂ O	1mg/ml (1,000ppm)	500ml
Cesium					
ICCU91	Cs ⁺	CsNO ₃	H ₂ O	0.1mg/ml (100ppm)	100ml
ICCS91	Cs ⁺	CsNO ₃	H ₂ O	1mg/ml (1,000ppm)	100ml
ICCB91	Cs ⁺	CsNO ₃	H ₂ O	1mg/ml (1,000ppm)	500ml
Cobalt					
ICCU15	Co ²⁺	Co Metal	0.005% HNO ₃	0.1mg/ml (100ppm)	100ml
ICCS15	Co ²⁺	Co Metal	0.005% HNO ₃	1mg/ml (1,000ppm)	100ml
ICCB15	Co ²⁺	Co Metal	0.005% HNO ₃	1mg/ml (1,000ppm)	500ml
Copper					
ICCU16	Cu ⁺	Cu Metal	0.005% HNO ₃	0.1mg/ml (100ppm)	100ml
ICCS16	Cu ⁺	Cu Metal	0.005% HNO ₃	1mg/ml (1,000ppm)	100ml
ICCB16	Cu ⁺	Cu Metal	0.005% HNO ₃	1mg/ml (1,000ppm)	500ml
Iron					
ICCU12	Fe ²⁺	Fe(NO ₃) ₃	0.005% HNO ₃	0.1mg/ml (100ppm)	100ml
ICCS12	Fe ²⁺	Fe(NO ₃) ₃	0.005% HNO ₃	1mg/ml (1,000ppm)	100ml
ICCB12	Fe ²⁺	Fe(NO ₃) ₃	0.005% HNO ₃	1mg/ml (1,000ppm)	500ml
Lead					
ICCU19	Pb ⁺	PbNO ₂	0.005% HNO ₃	0.1mg/ml (100ppm)	100ml
ICCS19	Pb ⁺	PbNO ₂	0.005% HNO ₃	1mg/ml (1,000ppm)	100ml
ICCB19	Pb ⁺	PbNO ₂	0.005% HNO ₃	1mg/ml (1,000ppm)	500ml
Lithium					
ICCU02	Li ⁺	LiNO ₃	0.005% HNO ₃	0.1mg/ml (100ppm)	100ml
ICCS02	Li ⁺	LiNO ₃	0.005% HNO ₃	1mg/ml (1,000ppm)	100ml
ICCB02	Li ⁺	LiNO ₃	0.005% HNO ₃	1mg/ml (1,000ppm)	500ml
Magnesium					
ICCU07	Mg ²⁺	Mg(NO ₃) ₂	H ₂ O	0.1mg/ml (100ppm)	100ml
ICCS07	Mg ²⁺	Mg(NO ₃) ₂	H ₂ O	1mg/ml (1,000ppm)	100ml
ICCB07	Mg ²⁺	Mg(NO ₃) ₂	H ₂ O	1mg/ml (1,000ppm)	500ml
Manganese					
ICCU11	Mn ²⁺	Mn	0.005% HNO ₃	0.1mg/ml (100ppm)	100ml
ICCS11	Mn ²⁺	Mn	0.005% HNO ₃	1mg/ml (1,000ppm)	100ml
ICCB11	Mn ²⁺	Mn	0.005% HNO ₃	1mg/ml (1,000ppm)	500ml
Nickel					
ICCU14	Ni ²⁺	Ni Metal	0.005% HNO ₃	0.1mg/ml (100ppm)	100ml
ICCS14	Ni ²⁺	Ni Metal	0.005% HNO ₃	1mg/ml (1,000ppm)	100ml
ICCB14	Ni ²⁺	Ni Metal	0.005% HNO ₃	1mg/ml (1,000ppm)	500ml
Potassium					
ICCU03	K ⁺	KNO ₃	0.005% HNO ₃	0.1mg/ml (100ppm)	100ml
ICCS03	K ⁺	KNO ₃	0.005% HNO ₃	1mg/ml (1,000ppm)	100ml
ICCB03	K ⁺	KNO ₃	0.005% HNO ₃	1mg/ml (1,000ppm)	500ml
Rubidium					
ICCU92	Rb ⁺	RbNO ₃	0.005% HNO ₃	0.1mg/ml (100ppm)	100ml
ICCS92	Rb ⁺	RbNO ₃	0.005% HNO ₃	1mg/ml (1,000ppm)	100ml
ICCB92	Rb ⁺	RbNO ₃	0.005% HNO ₃	1mg/ml (1,000ppm)	500ml

Product No.	Ion	Starting Material	Matrix	Concentration	Pack size
Sodium					
ICCU04	Na ⁺	NaNO ₃	0.005% HNO ₃	0.1mg/ml (100ppm)	100ml
ICCS04	Na ⁺	NaNO ₃	0.005% HNO ₃	1mg/ml (1,000ppm)	100ml
ICCB04	Na ⁺	NaNO ₃	0.005% HNO ₃	1mg/ml (1,000ppm)	500ml
Strontium					
ICCU43	Sr ²⁺	Sr(NO ₃) ₂	0.005% HNO ₃	0.1mg/ml (100ppm)	100ml
ICCS43	Sr ²⁺	Sr(NO ₃) ₂	0.005% HNO ₃	1mg/ml (1,000ppm)	100ml
ICCB43	Sr ²⁺	Sr(NO ₃) ₂	0.005% HNO ₃	1mg/ml (1,000ppm)	500ml
Zinc					
ICCU33	Zn ²⁺	Zn Metal	0.005% HNO ₃	0.1mg/ml (100ppm)	100ml
ICCS33	Zn ²⁺	Zn Metal	0.005% HNO ₃	1mg/ml (1,000ppm)	100ml
ICCB33	Zn ²⁺	Zn Metal	0.005% HNO ₃	1mg/ml (1,000ppm)	500ml

IC Multi-Element Standards

Product No.	Elements	Conc µg/ml	Matrix	Pack size
IC Multi-Element Standard, 5 Elements				
ICA-DX-51	Fl	20	H ₂ O	100ml
	Cl	30		
	NO ₃	100		
	PO ₄	150		
	SO ₄	150		
IC Multi-Element Standard, 6 Elements				
ICC-DX-611	Ca	1000	H ₂ O	100ml
	NH ₄	400		
	Na	200		
	K	200		
	Mg	200		
	Li	50		
IC Multi-Element Standard, 6 Elements				
ICC-DX-621	Li	50	H ₂ O	100ml
	Na	200		
	NH ₄	250		
	Mg	250		
	Ca	500		
	K	500		
IC Multi-Element Standard, 7 Elements				
ICA-DX-711	Fl	20	H ₂ O	100ml
	Cl	30		
	Br	100		
	NO ₂	100		
	NO ₃	100		
	PO ₄	150		
	SO ₄	150		
IC Multi-Element Standard, 7 Elements				
ICA-DX-721	PO ₄	200	H ₂ O	100ml
	Cl	100		
	Br	100		
	NO ₂	100		
	NO ₃	100		
	SO ₄	100		
	Fl	20		

Product No.	Elements	Conc µg/ml	Matrix	Pack size
IC Multi-Element Standard, 7 Elements				
ICA-LIS-601	Fl	50	H ₂ O	100ml
	Cl	1000		
	Br	100		
	NO ₂	20		
	NO ₃ as N	200		
	PO ₄ as P	15		
	SO ₄	5000		
IC Multi-Element Standard, 6 Elements				
ICA-BMS-65	NO ₃	200	H ₂ O	500ml
	SO ₄	200		
	PO ₄	200		
	Br	100		
	Fl	100		
	Cl	100		
	IC Multi-Element Standard, 3 Elements			
ICA-TG-35	PO ₄ as P	100	H ₂ O	500ml
	NH ₄ as N	1000		
	NO ₃ as N	1000		
IC Multi-Element Standard, 4 Elements				
ICA-TG-45	PO ₄ as P	10	H ₂ O	500ml
	NO ₃ as N	300		
	NH ₄ as N	150		
	Cl	3000		
IC Multi-Element Standard, 3 Elements				
IC-NHS-3	Na	200	H ₂ O, tr. HNO ₃	100ml
	K	10		
	Mg	2		
IC Multi-Element Standard, 4 Elements				
IC-NHS-4	Na	100	H ₂ O	100ml
	K	10		
	Mg	1		
	Ca	5		
IC Multi-Element Standard, 7 Elements				
IC-GLO-7-100	Cl	1000	H ₂ O	100ml
	SO ₄	1000		
	NO ₃	1000		
	Br	100		
	NO ₂	100		
	PO ₄	100		
	Fl	100		
IC Multi-Element Standard, 7 Elements				
IC-SYN-7	Cl	100	H ₂ O	100ml
	Br	100		
	NO ₂	100		
	NO ₃	100		
	SO ₄	100		
	Fl	20		
	PO ₄	200		

Atomic Absorption Standards

Reagecon manufacture an extensive range of aqueous AA Standards. These include standards for the measurement of the most common alkali and transition metals. Products are packed in 500ml Bottles.

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	AANAH	
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

Matrix Modifier Solutions for Graphite Furnace AA

Description	Product No. 100ml	Product No. 500ml
Ammonium dihydrogen phosphate solution 40% in Water	MMS101	MMS105
Ammonium nitrate solution 2% in Water	MMS201	MMS205
Calcium nitrate solution 2% Ca in 5% in HNO ₃	MMS301	MMS305
Lanthanum chloride solution 5% La in 5% HCl	MMS401	MMS405
Lanthanum nitrate solution 5% La in 5% HNO ₃	MMS501	MMS505
Magnesium nitrate solution 2% Mg in 5% HNO ₃	MMS601	MMS605
Nickel nitrate solution 5% Ni in 5% HNO ₃	MMS701	MMS705
Palladium nitrate solution 0.2% Pd in 5% HNO ₃	MMS801	MMS805
Palladium nitrate solution 1.0% Pd in 5% HNO ₃	MMS901	MMS905
Palladium nitrate solution 2.0% Pd in 10% HNO ₃	MMS1001	MMS1005

Releasing Agents for Atomic Absorption

Releasing agents eliminate the chemical interference from ligands that complex with the analyte thereby altering the free atom population in the flame.

Product No.	Description	Pack size
RA1N05	1.0% Lanthanum in HNO ₃	500ml
RA1C05	1.0% Lanthanum in HCl	500ml
RA5N05	5.0% Lanthanum in HNO ₃	500ml
RA5C05	5.0% Lanthanum in HCl	500ml

Flame Photometry Standards



Summary of Features & Benefits:

- Single and multielement solutions available
- Wide range of values and elements
- A very high accuracy supported by a certificate of analysis which can be downloaded online
- Products are non hazardous, non toxic and SDS (Safety Data Sheets) can also be downloaded
- All products manufactured and tested in a GLP (Good Laboratory Practice) environment

The Principle of Flame Photometry

Introduction

The benefits of measuring electromagnetic radiation emitted by atoms subjected to flame excitation has been recognised for over 150 years in analytical chemistry. In the intervening period instrumentation capable of exploiting this principle has been developed, refined and commercialised by several companies using a number of technologies. Flame photometry is particularly suitable for measuring the concentration of Alkali and Alkaline Earth metals in several matrices by exploiting a characteristic of such metals whereby, their atoms reach an excited state at a lower temperature than most other metals. The instrument operates on the principle that the metals are thermally dissociated into atoms and the electrons in some of these atoms are excited by the flame. When the excited atoms return to their normal state, they emit electromagnetic radiation which lies mainly in the visible region. The wavelengths of this radiation are easily isolated by an optical filter from those of most other elements and then converted to an electric signal. This signal is a direct function of the concentration of the particular metal in the sample, control or standard. The spectra produced are simple, free of interference and well suited to quantifiable measurement.

Calibration & Control

Flame Photometry Standards may be used to:

- 1) Calibrate the instrument in preparation for testing.
- 2) Control the entire testing process to include:
 - The flame photometer
 - Sample
 - Operator
 - Measuring environmentAny of these four factors can influence the accuracy and precision of the analysis and give erroneous results.
- 3) Perform instrument qualification
- 4) Assist in method validation of a particular flame photometry technique



Industrial 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
FIL1	Lithium	1,000ppm	500ml
FINA1	Sodium	1,000ppm	500ml
FIK1	Potassium	1,000ppm	500ml
FISR1	Strontium	1,000ppm	500ml
FIRB1	Rubidium	1,000ppm	500ml

Clinical Standards

Product No.	Description	Pack size
FCNK3	Sodium 100/Potassium 100mmol/l	500ml
FCNK4	Sodium 120/Potassium 2mmol/l	500ml
FCNK5	Sodium 140/Potassium 5mmol/l	500ml
FCNK1	Sodium 160/Potassium 8mmol/l	500ml
FCNK2	Sodium 160/Potassium 80mmol/l	500ml
FCLI001	Lithium 1mmol/l	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

Volatile Organic Compounds



Summary of Features & Benefits:

Commercial Benefits

- Ready to use (dilute for use as calibration and/or quality control standards)
- Extensive range of organic compound mixes and single compound standards available
- Can be used with a variety of instruments including GC, GC-MS, HPLC and LC-MS
- Designed specifically for use in EPA or EU analytical methods
- Presented in high quality amber ampoules
- Customised formulations available

Technical Benefits

- Produced in accordance with EPA methods
- Consistency of product - Independent, Traceable, Certified
- Ideal for use in EPA 500, 600 and 8000 series methods
- Certificates of Analysis and Safety Data Sheets available online

These products are prepared gravimetrically on a weight/weight basis. Both solute and solvent are weighed on a balance calibrated by Reagecon engineers using OIML traceable weights. Reagecon holds ISO 17025 accreditation for calibration of laboratory balances (INAB ref: 265C). The resulting Balance Certificate of Calibration is issued in accordance with the requirements of ISO/IEC 17025. The concentration of each standard is verified using a high performance calibrated Gas Chromatograph - Mass Spectrometer (GC-MS Instrument). The calibration of the GC-MS instrument is completed using high purity ISO Guide 34 accredited VOC standards similar in VOC concentration value to these products. The mass spectrum of each of the analytes is confirmed by comparison with the National Institute of Standards and Technology (NIST) mass spectral library.



Volatile Organic Compounds (VOCs) Mixed Standards

Description	US EPA Methods	Packed in ampoule	2,000µg/ml in Purge & Trap Methanol	200µg/ml in Purge & Trap Methanol
1,1-Dichlorethene (dichloroethylene)	502.2	1ml	REVOC001 (54 compound mix)	REVOC002 (54 compound mix)
trans-1,2-Dichloroethene	524.2			
Dichloromethane (methylene chloride)	8021			
1,1-Dichloroethane	8021A			
cis-1,2-Dichloroethane	8021B			
2,2-Dichloropropane	8260B			
Bromochloromethane				
Chloroform				
1,1,1-Trichloroethane				
1,1-Dichloropropene				
Carbon Tetrachloride				
1,2-Dichloroethane				
Benzene				
Trichloroethene				
1,2-Dichloropropane				
Dibromomethane				
Bromodichloromethane				
trans-1,3-Dichloropropene				
Toluene				
cis-1,3-Dichloropropene				
1,3-Dichloropropane				
Tetrachloroethene				
Dibromochloromethane				
Dibromoethane				
Chlorobenzene				
1,1,1,2-Tetrachloroethane				
Ethylbenzene				
m-Xylene				
p-Xylene				
o-Xylene				
Styrene				
Bromoform				
Isopropylbenzene				
1,1,2,2-Tetrachloroethane				
1,2,3-Trichloropropane				
Bromobenzene				
n-Propylbenzene				
2-Chlorotoluene				
1,2,4-Trimethylbenzene				
4-Chlorotoluene				
tert-Butylbenzene				
1,3,5-Trimethylbenzene				
sec-Butylbenzene				
1,3-Dichlorobenzene				
4-Isopropyltoluene				
1,4-Dichlorobenzene				
1,2-Dichlorobenzene				
n-Butylbenzene				
1,2-Dibromo-3-chloropropane				
1,2,3-Trichlorobenzene				
Hexachlorobutadiene				
Naphthalene				
1,2,4-Trichlorobenzene				
1,1,2-Trichloroethane				

Volatile Organic Compounds (VOCs) Mixed Standards

Description	US EPA Methods	Packed in ampoule	2,000µg/ml in Purge & Trap Methanol	200µg/ml in Purge & Trap Methanol
Bromoform	502.2	1ml	REVOC003 (15 compound mix)	REVOC004 (15 compound mix)
Chlorobenzene	524.2			
Carbon Tetrachloride	8021			
Chloroform	8021A			
Dibromochloromethane	8021B			
1,1-Dichloroethane	624			
1,2-Dichloroethane	8240B			
1,1-Dichloroethene	8260B			
trans-1,2-Dichloroethene				
1,2-Dichloropropane				
Dichloromethane				
1,1,2,2-Tetrachloroethane				
Tetrachloroethene				
1,1,2-Trichloroethane				
Trichloroethene				
Bromobenzene	502.2,	1ml	REVOC005 (21 compound mix)	REVOC006 (21 compound mix)
Bromochloromethane	524.2,			
Bromodichloromethane	8021,			
n-Butylbenzene	8021A,			
2-Chlorotoluene	8021B,			
4-Chlorotoluene	8260B			
Dibromoethane				
1,2-Dichlorobenzene				
1,3-Dichlorobenzene				
cis-1,2-Dichloroethane				
1,3-Dichloropropane				
1,1-Dichloropropene				
cis-1,3-Dichloropropene				
trans-1,3-Dichloropropene				
Ethylbenzene				
Isopropylbenzene				
Styrene				
1,1,1,2-Tetrachloroethane				
1,1,1-Trichloroethane				
1,2,3-Trichloropropane				
p-Xylene				
Benzene	502.2,	1ml	REVOC007 (17 compound mix)	REVOC008 (17 compound mix)
sec-Butylbenzene	524.2,			
tert-Butylbenzene	8021,			
1,2-Dibromo-3-chloropropane	8021A,			
1,4-Dichlorobenzene	8021B,			
2,2-Dichloropropane	8260B			
Hexachlorobutadiene				
4-Isopropyltoluene				
Naphthalene				
n-Propylbenzene				
Toluene				
1,2,3-Trichlorobenzene				
1,2,4-Trichlorobenzene				
1,2,4-Trimethylbenzene				
1,3,5-Trimethylbenzene				
o-Xylene				
m-Xylene				
Bromodichloromethane	501	1ml	REVOC009 (4 compound mix)	REVOC010 (4 compound mix)
Bromoform				
Chloroform				
Dibromochloromethane				

Description	US EPA Methods	Packed in ampoule	2,000µg/ml in Purge & Trap Methanol	200µg/ml in Purge & Trap Methanol
Benzene	602	1ml	REVOC018 (7 compound mix)	REVOC019 (7 compound mix)
Chlorobenzene				
1,2-Dichlorobenzene				
1,3-Dichlorobenzene				
1,4-Dichlorobenzene				
Ethylbenzene				
Toluene				
Benzene	602	1ml	REVOC020 (6 compound mix for BTEX)	REVOC021 (6 compound mix for BTEX)
Ethylbenzene				
Toluene				
m-Xylene				
p-Xylene				
o-Xylene				

Volatile Organic Compounds (VOCs) Mixed Standards

Product No.	Description - Each at 2,000µg/ml in Purge & Trap Methanol	US EPA Methods	Packed in ampoule
REVOC011 (9 compound mix)	Bromochloromethane	502.2,	1ml
	Bromoform	524.2	
	Carbon Tetrachloride	8021	
	Chloroform	8021A,	
	Dibromomethane	8021B	
	1,1-Dichloroethane		
	2,2-Dichloropropane		
	Tetrachloroethene		
	1,1,1-Trichloroethane		
REVOC012 (16 compound mix)	1,2-Dibromo-3-chloropropane	502.2	1ml
	Dibromoethane	524.2,	
	1,2-Dichloroethane	8021,	
	1,2-Dichloropropane	8021A,	
	1,3-Dichloropropane	8021B	
	1,1-Dichloropropene		
	trans-1,3-Dichloropropene		
	cis-1,3-Dichloropropene		
	Hexachlorobutadiene		
	1,1,1,2-Tetrachloroethane		
	1,1,2,2-Tetrachloroethane		
	1,1,2-Trichloroethane		
	Trichloroethene		
	1,2,3-Trichloropropane		
	Naphthalene		
	1,2,4-Trimethylbenzene		
REVOC013 (12 compound mix)	Benzene	502.2	1ml
	Bromobenzene	524.2,	
	n-Butylbenzene	8021,	
	Ethylbenzene	8021A,	
	4-Isopropyltoluene	8021B	
	Styrene		
	Toluene		
	1,2,3-Trichlorobenzene		
	1,2,4-Trichlorobenzene		
	1,3,5-Trimethylbenzene		
	1,2,4-Trimethylbenzene		
	m-Xylene		

Volatile Organic Compounds (VOCs) Mixed Standards

Product No.	Description - Each at 2,000µg/ml in Purge & Trap Methanol	US EPA Methods	Packed in ampoule
REVOC014 (12 compound mix)	sec-Butylbenzene	502.2	1ml
	tert-Butylbenzene	524.2,	
	Chlorobenzene	8021,	
	2-Chlorotoluene	8021A,	
	4-Chlorotoluene	8021B	
	1,2-Dichlorobenzene		
	1,3-Dichlorobenzene		
	1,4-Dichlorobenzene		
	Isopropylbenzene		
	n-Propylbenzene		
	o-Xylene		
	p-Xylene		
REVOC015 (28 compound mix)	1,2,4-Trimethylbenzene	503.1	1ml
	1,2-Dichlorobenzene		
	1,3,5-Trimethylbenzene		
	1,3-Dichlorobenzene		
	1,4-Dichlorobenzene		
	2-Chlorotoluene		
	Benzene		
	Bromobenzene		
	n-Butylbenzene		
	tert-Butylbenzene		
	sec-Butylbenzene		
	Chlorobenzene		
	4-Chlorotoluene		
	Ethylbenzene		
	Hexachlorobutadiene		
	Isopropylbenzene		
	4-Isopropyltoluene		
	Naphthalene		
	n-Propylbenzene		
	Styrene		
	Tetrachloroethene		
	Toluene		
	1,2,3-Trichlorobenzene		
	1,2,4-Trichlorobenzene		
	Trichloroethene		
	m-Xylene		
	p-Xylene		
	o-Xylene		
REVOC016 (2 compound mix)	1,2-Dibromo-3-chloropropane	504,	1ml
	Dibromoethane	8011	
REVOC017 (3 compound mix)	1,2-Dibromo-3-chloropropane	504.1	1ml
	Dibromoethane		
	1,2,3-Trichloropropane		
REVOC022 (10 compound mix)	Benzene	8020	1ml
	Chlorobenzene	8020A	
	1,3-Dichlorobenzene		
	1,4-Dichlorobenzene		
	1,2-Dichlorobenzene		
	Ethylbenzene		
	m-Xylene		
	p-Xylene		
	o-Xylene		
	Toluene		

Volatile Organic Compounds (VOCs) Mixed Standards

Product No.	Description - Each at 2,000µg/ml in Purge & Trap Methanol	US EPA Methods	Packed in ampoule
REVOC023 (53 compound mix)	1,1-Dichloroethene (dichloroethylene)	8021	1ml
	Dichloromethane (methylene chloride)	8021A,	
	trans-1,2-Dichloroethene	8021B,	
	1,1-Dichloroethane	8260B	
	cis-1,2-Dichloroethane		
	2,2-Dichloropropane		
	Chloroform		
	1,1,1-Trichloroethane		
	1,1-Dichloropropene		
	Carbon Tetrachloride		
	1,2-Dichloroethane		
	Benzene		
	Trichloroethene		
	1,2-Dichloropropane		
	Dibromomethane		
	Bromodichloromethane		
	trans-1,3-Dichloropropene		
	Toluene		
	cis-1,3-Dichloropropene		
	1,3-Dichloropropane		
	Tetrachloroethene		
	Dibromochloromethane		
	Dibromoethane		
	Chlorobenzene		
	1,1,1,2-Tetrachloroethane		
	Ethylbenzene		
	m-Xylene		
	p-Xylene		
	o-Xylene		
	Styrene		
	Bromoform		
	Isopropylbenzene		
	1,1,2,2-Tetrachloroethane		
	1,2,3-Trichloropropane		
	Bromobenzene		
	n-Propylbenzene		
	2-Chlorotoluene		
	1,2,4-Trimethylbenzene,		
	4-Chlorotoluene		
	tert-Butylbenzene		
	1,3,5-Trimethylbenzene		
	sec-Butylbenzene		
	1,3-Dichlorobenzene		
	4-Isopropyltoluene		
	1,4-Dichlorobenzene		
	1,2-Dichlorobenzene		
	n-Butylbenzene		
	1,2-Dibromo-3-chloropropane		
	1,2,3-Trichlorobenzene		
	Hexachlorobutadiene		
	Naphthalene		
	1,2,4-Trichlorobenzene		
	1,1,2-Trichloroethane		

Product No. Packed in 1ml Ampoule	Description - Each at 200µg/ml in Purge & Trap Methanol
REVOC025 (20 compound mix)	1,1,1-Trichloroethane
	1,1-Dichloroethene (dichloroethylene)
	1,1-Dichloroethane
	1,2-Dichlorobenzene
	1,2-Dichloropropane
	1,3-Dichlorobenzene
	1,4-Dichlorobenzene
	Benzene
	Bromodichloromethane
	Bromoform
	Carbon Tetrachloride
	Chlorobenzene
	Chloroform
	Dibromochloromethane
	Dichloromethane (methylene chloride)
	Ethylbenzene
	Styrene
	Tetrachloroethene
	Toluene
	Trichloroethene

Product No. Packed in 1ml Ampoule	Description - Each at 1000µg/ml in Purge & Trap Methanol
REVOC026 (18 compound mix)	1,2,3-Trichlorobenzene
	1,2,4-Trichlorobenzene
	1,2-Dichlorobenzene
	1,3-Dichlorobenzene
	1,4-Dichlorobenzene
	Benzene
	Bromodichloromethane
	Bromoform
	Carbon Tetrachloride
	Chloroform
	Dibromochloromethane
	Ethylbenzene
	Isopropylbenzene
	m-Xylene
	o-Xylene
	p-Xylene
	Styrene
	Toluene

Product No. Packed in 1ml Ampoule	Description - Each at 20000µg/ml in Purge & Trap Methanol
REVOC0028 (13 compound mix)	1,2,3-Trichlorobenzene
	1,2,4-Trichlorobenzene
	1,2,4-Trimethylbenzene
	1,3,5-Trimethylbenzene
	4-Isopropyltoluene
	Benzene
	Bromobenzene
	Ethylbenzene
	m-Xylene
	Naphthalene
	n-Butylbenzene
	Styrene
	Toluene

Product No. Packed in 1ml Ampoule	Description - Each at 20000µg/ml in Purge & Trap Methanol
REVOC0030 (12 compound mix)	1,2-Dichlorobenzene
	1,3-Dichlorobenzene
	1,4-Dichlorobenzene
	2-Chlorotoluene
	4-Chlorotoluene
	Chlorobenzene
	Isopropylbenzene
	n-Propylbenzene
	o-Xylene
	p-Xylene
	sec-Butylbenzene
	tert-Butylbenzene

Product No. Packed in 1ml Ampoule	Description - Each at 20000µg/ml in Purge & Trap Methanol
REVOC0031 (12 compound mix)	1,2,3-Trichlorobenzene
	1,2,4-Trichlorobenzene
	1,2,4-Trimethylbenzene
	1,3,5-Trimethylbenzene
	4-Isopropyltoluene
	Benzene
	Bromobenzene
	Ethylbenzene
	Naphthalene
	n-Butylbenzene
	Styrene
	Toluene

Product No. Packed in 1ml Ampoule	Description - Each at 1000µg/ml in Purge & Trap Methanol
REVOC0033 (11 compound mix)	1,2-Dichlorobenzene
	1,3-Dichlorobenzene
	1,4-Dichlorobenzene
	2-Chlorotoluene
	4-Chlorotoluene
	Chlorobenzene
	Isopropylbenzene
	n-Propylbenzene
	sec-Butylbenzene
	tert-Butylbenzene
	o-Xylene

Product No. Packed in 1ml Ampoule	Description - Each at 40µg/ml in Purge & Trap Methanol
REVOC0034 (10 compound mix)	1,1,2,2-Tetrachloroethane
	1,1,2-Trichloroethane
	1,1-Dichloroethene (dichloroethylene)
	1,2,3-Trichloropropane
	1,2-Dichloroethane
	1,2-Dichloropropane
	Chloroform
	Hexachlorobutadiene
	Tetrachloroethene
	Trichloroethene

Product No. Packed in 1ml Ampoule	Description - Each at 200µg/ml in Purge & Trap Methanol
REVOC0035 (10 compound mix)	1,1,1-Trichloroethane
	1,1-Dichloroethene
	Bromodichloromethane
	Bromoform
	Carbon Tetrachloride
	Chloroform
	Dibromochloromethane
	Dichloromethane (methylene chloride)
	Tetrachloroethene
	Trichloroethene

Product No. Packed in 1ml Ampoule	Description - Each at 20000µg/ml in Purge & Trap Methanol
REVOC0036 (9 compound mix)	1,1,1-Trichloroethane
	1,1-Dichloroethane
	2,2-Dichloropropane
	Bromodichloromethane
	Bromoform
	Carbon Tetrachloride
	Chloroform
	Dibromomethane
	Tetrachloroethene

Product No. Packed in 1ml Ampoule	Description - Each at 1000µg/ml in Purge & Trap Methanol
REVOC0037 (9 compound mix)	Benzene
	Carbon Tetrachloride
	Chloroform
	m-Xylene
	o-Xylene
	p-Xylene
	Tetrachloroethene
	Toluene
	Trichloroethene

Product No. Packed in 1ml Ampoule	Description - Each at 1000µg/ml in Purge & Trap Methanol
REVOC0038 (9 compound mix)	1,2-Dichlorobenzene
	Benzene
	Chlorobenzene
	Ethylbenzene
	m-Xylene
	o-Xylene
	p-Xylene
	Styrene
	Toluene

Product No. Packed in 1ml Ampoule	Description - Each at 100µg/ml in Methylene Chloride
REVOC0042 (8 compound mix)	1,1,1-Trichloroethane
	Bromodichloromethane
	Bromoform
	Chloroform
	Dibromochloromethane
	Dichloromethane (methylene chloride)
	Tetrachloroethene
	Trichloroethene

Product No. Packed in 1ml Ampoule	Description - Each at 100µg/ml in Purge & Trap Methanol
REVOC0043 (5 compound mix)	Bromoform
	Carbon Tetrachloride
	Chloroform
	Tetrachloroethene
	Trichloroethene

Product No. Packed in 1ml Ampoule	Description - Each at 40µg/ml in Purge & Trap Methanol
REVOC0046 (3 compound mix)	1,1,1-Trichloroethane
	1,1-Dichloroethane
	trans-1,2-Dichloroethene

Product No. Packed in 1ml Ampoule	Description - Each at 1000µg/ml in Purge & Trap Methanol
REVOC0047 (3 compound mix)	1,1-Dichloroethane
	1,2-Dichloroethane
	Dichloromethane (methylene chloride)

Product No. Packed in 1ml Ampoule	Description - Each at 1000µg/ml in Purge & Trap Methanol
REVOC0048 (3 compound mix)	1,2,4-Trichlorobenzene
	1,4-Dichlorobenzene
	Chlorobenzene

Product No. Packed in 1ml Ampoule	Description - Each at 1000µg/ml in Purge & Trap Methanol	Product No. Packed in 1ml Ampoule	Description - Each at 200µg/ml in Purge & Trap Methanol
REVOC0049 (2 compound mix)	Tetrachloroethene	REVOC0051 (2 compound mix)	Benzene
	Trichloroethene		Toluene

Product No. Packed in 1ml Ampoule	Description - Each at 2µg/ml in Purge & Trap Methanol	Product No. Packed in 1ml Ampoule	Description - Each at 100µg/ml in Purge & Trap Methanol
REVOC0052 (2 compound mix)	Benzene	REVOC0053 (2 compound mix)	Benzene
	Toluene		Toluene

Product No. Packed in 1ml Ampoule	Description - Each in Acetone	Concentration µg/ml
REVOC0032 (12 compound mix)	1,2-Dichloroethane	4000
	Benzene	12000
	Carbon Tetrachloride	4000
	Chlorobenzene	8000
	Chloroform	4000
	Ethylbenzene	8000
	m-Xylene	12000
	o-Xylene	12000
	p-Xylene	12000
	Tetrachloroethene	4000
	Toluene	12000
	Trichloroethene	4000

Product No. Packed in 1ml Ampoule	Description - Each in Purge & Trap Methanol	Concentration µg/ml
REVOC0039 (9 compound mix)	1,2-Dichloroethane	3000
	Benzene	1000
	Chlorobenzene	1000
	Ethylbenzene	1000
	m-Xylene	1000
	o-Xylene	1000
	p-Xylene	1000
	Styrene	1000
	Toluene	1000
REVOC040 (9 compound mix)	1,1,1-Trichloroethane	100
	1,2-Dichloroethane	100
	Bromodichloromethane	100
	Bromoform	100
	Carbon Tetrachloride	100
	Chloroform	100
	Dibromochloromethane	100
	Tetrachloroethene	50
	Trichloroethene	50
REVOC041 (8 compound mix)	1,2-Dichloroethane	3000
	Benzene	1000
	Ethylbenzene	1000
	m-Xylene	1000
	o-Xylene	1000
	p-Xylene	1000
	Styrene	1000
	Toluene	1000

Product No. Packed in 1ml Ampoule	Description - Each in Purge & Trap Methanol	Concentration µg/ml
REVOC044 (5 compound mix)	1,1-Dichloroethane	6
	1,2,3-Trichloropropane	6
	Bromochloromethane	12
	n-Propylbenzene	6
	sec-Butylbenzene	8
REVOC045 (5 compound mix)	1,1-Dichloroethane	0.6
	1,2,3-Trichloropropane	0.6
	Bromochloromethane	1.2
	n-Propylbenzene	0.6
	sec-Butylbenzene	0.8

Product No. Packed in 1ml Ampoule	Description - Each at 2000µg/ml in Purge & Trap Methanol	US EPA Methods
REVOC0027 (13 compound mix)	1,2,3-Trichlorobenzene	502
	1,2,4-Trichlorobenzene	524
	1,2,4-Trimethylbenzene	
	1,3,5-Trimethylbenzene	
	4-Isopropyltoluene	
	Benzene	
	Bromobenzene	
	Ethylbenzene	
	m-Xylene	
	Naphthalene	
	n-Butylbenzene	
	Styrene	
	Toluene	

Volatile Organic Compounds (VOCs) Single Component Standards

Product No.	Description	Concentration	US EPA Methods	Packed in Ampoule
REVOC101	1,1-Dichloroethene	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	1,1,2,2-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

Internal Standards & Surrogates

Product No.	Description	Concentration	US EPA Methods	Packed in Ampoule
REVOC001-I	Fluorobenzene	2,000µg/ml in Purge and Trap Methanol	524.2	1ml
REVOC002-I	Fluorobenzene	1,000µg/ml in Purge and Trap Methanol	524.2, 502.2	1ml
REVOC003-I	Fluorobenzene	4,000µg/ml in Purge and Trap Methanol	524.2	1ml
REVOC004-I	ααα-Trifluorotoluene	1,000µg/ml in Purge and Trap Methanol	503.1 602	1ml
REVOC005-I	2-Bromo-1-Chloropropane Fluorobenzene	1,000µg/ml in Purge and Trap Methanol	8021, 8021A, 8021B	1ml
REVOC006-I	Bromodichloromethane	1,000µg/ml in Purge and Trap Methanol	502.1	1ml
REVOC007-I	2-Bromo-1Chloropropane Fluorobenzene	2,000µg/ml in Purge and Trap Methanol	502.2	1ml
REVOC008-I	1-Chloro-2-fluorobenzene	1,000µg/ml in Purge and Trap Methanol	502.2	1ml
REVOC001-S	4-Bromofluorobenzene, 1,2-Dichlorobenzene D4	1,000µg/ml in Purge and Trap Methanol	524.2	1ml
REVOC002-S	4-Bromofluorobenzene, 1,2-Dichlorobenzene D4	2,000µg/ml in Purge and Trap Methanol	524.2	1ml
REVOC003-FS	4-Bromofluorobenzene, 1,2-Dichlorobenzene D4 Fluorobenzene	1,000µg/ml in Purge and Trap Methanol	524.2	1ml
REVOC003-TS	4-Bromofluorobenzene	1,000µg/ml in Purge and Trap Methanol	524.2	1ml

Phenols



Summary of Features & Benefits:

Commercial Benefits

- Ready to use (dilute for use as calibration and/or quality control standards)
- Extensive range of organic compound mixes and single compound standards available
- Can be used with a variety of instruments including GC, GC-MS, HPLC and LC-MS
- Designed specifically for use in EPA or EU analytical methods
- Presented in high quality amber ampoules
- Customised formulations available

Technical Benefits

- Produced in accordance with EPA methods
- Consistency of product - Independent, Traceable, Certified
- Ideal for use in EPA 500, 600 and 8000 series methods
- Certificates of Analysis and Safety Data Sheets available online
- Customised formulations available

These products are prepared gravimetrically on a weight/weight basis. Both solute and solvent are weighed on a balance calibrated by Reagecon engineers using OIML traceable weights. Reagecon holds ISO 17025 accreditation for calibration of laboratory balances (INAB ref: 265C). The resulting Balance Certificate of Calibration is issued in accordance with the requirements of ISO/IEC 17025. The concentration of each standard is verified using an ISO 17025 accredited test method on a high performance calibrated Gas Chromatograph - Mass Spectrometer (GC-MS Instrument). The calibration of the GC-MS instrument is completed using high purity ISO Guide 34 accredited Phenol standards from a secondary source similar in Phenol concentration value to these products. The mass spectrum of each of the analytes is confirmed by comparison with the National Institute of Standards and Technology (NIST) mass spectral library.



Phenol Mixed Standards

Product No.	Description	Concentration	US EPA Methods	Packed in Ampoule
REPHE001 (11 Compound Mix)	2-Chlorophenol	Each analyte at 2,000µg/ml in high-purity Dichloromethane (Methylene Chloride)	604	1ml
	2,4-Dichlorophenol			
	2,4-Dimethylphenol			
	2-Methyl-4,6-dinitrophenol (DNOC)			
	2-Nitrophenol			
	4-Nitrophenol			
	Pentachlorophenol			
	Phenol			
	2,4,6-Trichlorophenol			
	4-Chloro-3-methylphenol			
	2,4-Dinitrophenol			
REPHE002 (7 Compound Mix)	2,6-Dichlorophenol	Each analyte at 2,000µg/ml in high-purity Dichloromethane (Methylene Chloride)	604	1ml
	2-Methylphenol			
	3-Methylphenol			
	4-Methylphenol			
	2,4,5-Trichlorophenol			
	2,3,4,6-Tetrachlorophenol			
	2-sec-Butyl-4,6-dinitrophenol (Dinoseb)			
REPHE003 (11 Compound Mix)	2-Chlorophenol	Each analyte at 2,000µg/ml in high-purity Methanol	604 625	1ml
	2,4-Dichlorophenol			
	2,4-Dimethylphenol			
	2-Methyl-4,6-dinitrophenol (DNOC)			
	2-Nitrophenol			
	4-Nitrophenol			
	Pentachlorophenol			
	Phenol			
	2,4,6-Trichlorophenol			
	4-Chloro-3-methylphenol			
	2,4-Dinitrophenol			
REPHE004 (5 Compound Mix)	4-Chloro-3-methylphenol	Each analyte at 2,000µg/ml in high-purity Methanol	604 625	1ml
	2-Chlorophenol			
	4-Nitrophenol			
	Pentachlorophenol			
	Phenol			
REPHE005 (18 Compound Mix)	2-Chlorophenol	Each analyte at 2,000µg/ml in high-purity Isopropanol	8270	1ml
	2,4-Dichlorophenol			
	2,4-Dimethylphenol			
	2-Methyl-4,6-dinitrophenol (DNOC)			
	2-Nitrophenol			
	4-Nitrophenol			
	Pentachlorophenol			
	Phenol			
	2,4,6-Trichlorophenol			
	4-Chloro-3-methylphenol			
	2,4-Dinitrophenol			
	2,6-Dichlorophenol			
	2-Methylphenol			
	3-Methylphenol			
	4-Methylphenol			
	2,4,5-Trichlorophenol			
	2,3,4,6-Tetrachlorophenol			
	2-sec-Butyl-4,6-dinitrophenol (Dinoseb)			

Phenol Mixed Standards

Product No.	Description	Concentration	US EPA Methods	Packed in Ampoule
REPHE006 (13 Compound Mix)	4-Chloro-3-methylphenol	Each analyte at 2,000µg/ml in high-purity Methanol	8270	1ml
	2-Chlorophenol			
	2,4-Dichlorophenol			
	2,6-Dichlorophenol			
	2,4-Dimethylphenol			
	2,4-Dinitrophenol			
	2-Methyl-4,6-dinitrophenol (DNOC)			
	2-Nitrophenol			
	4-Nitrophenol			
	Pentachlorophenol			
	Phenol			
	2,3,4,6-Tetrachlorophenol			
	2,4,6-Trichlorophenol			
REPHE007 (11 Compound Mix)	4-Chloro-3-methylphenol	Each analyte at 2,000µg/ml in high-purity Methanol	8270	1ml
	2-Chlorophenol			
	2,4-Dichlorophenol			
	2,4-Dimethylphenol			
	2-Methyl-4,6-dinitrophenol (DNOC)			
	2,4-Dinitrophenol			
	2-Nitrophenol			
	4-Nitrophenol			
	Pentachlorophenol			
	Phenol			
REPHE008 (5 Compound Mix)	4-Chloro-3-methylphenol	Each analyte at 2,000µg/ml in high-purity Dichloromethane (Methylene Chloride)	8270	1ml
	2-Chlorophenol			
	4-Nitrophenol			
	Pentachlorophenol			
	Phenol			
REPHE009 (6 Compound Mix)	4-Chloro-3-methylphenol	Each analyte at 2,000µg/ml in high-purity Dichloromethane (Methylene Chloride)	8270	1ml
	2,4-Dinitrophenol			
	2-Nitrophenol			
	Pentachlorophenol			
	Phenol			
REPHE010 (6 Compound Mix)	2,4,6-Trichlorophenol	Each analyte at 2,000µg/ml in high-purity Dichloromethane (Methylene Chloride)	1311	1ml
	2-Methylphenol			
	3-Methylphenol			
	4-Methylphenol			
	Pentachlorophenol			
	2,4,5-Trichlorophenol			

Product No. Packed in 1ml Ampoule	Description - Each at 100µg/ml in Purge & Trap Methanol	Product No. Packed in 1ml Ampoule	Description - Each at 5000µg/ml in Methylene Chloride
REPHE015 (17 compound mix)	2,3,4,6-Tetrachlorophenol	REPHE016 (14 compound mix)	2,4,5-Trichlorophenol
	2,4,5-Trichlorophenol		2,4,6-Trichlorophenol
	2,4,6-Trichlorophenol		2,4-Dichlorophenol
	2,4-Dichlorophenol		2,4-Dimethylphenol
	2,4-Dimethylphenol		2,4-Dinitrophenol
	2,4-Dinitrophenol		2-Chlorophenol
	2,6-Dichlorophenol		2-Methyl-4,6-dinitrophenol (DNOC)
	2-Chlorophenol		2-Methylphenol
	2-Methyl-4,6-dinitrophenol (DNOC)		2-Nitrophenol
	2-Methylphenol		4-Chloro-3-methylphenol
	2-Nitrophenol		4-Methylphenol
	3-Methylphenol		4-Nitrophenol
	4-Chloro-3-methylphenol		Pentachlorophenol
	4-Methylphenol		Phenol
	4-Nitrophenol		
	Pentachlorophenol		
	Phenol		

Product No. Packed in 1ml Ampoule	Description - Each at 2000µg/ml in Methylene Chloride	Product No. Packed in 1ml Ampoule	Description - Each at 1000µg/ml in Methylene Chloride
REPHE017 (14 compound mix)	2,4,5-Trichlorophenol	REPHE018 (14 compound mix)	2,4,6-Trichlorophenol
	2,4,6-Trichlorophenol		2,4-Dichlorophenol
	2,4-Dichlorophenol		2,4-Dimethylphenol
	2,4-Dimethylphenol		2,4-Dinitrophenol
	2,4-Dinitrophenol		2,6-Dichlorophenol
	2-Chlorophenol		2-Chlorophenol
	2-Methyl-4,6-dinitrophenol (DNOC)		2-Methyl-4,6-dinitrophenol (DNOC)
	2-Methylphenol		2-Methylphenol
	2-Nitrophenol		2-Nitrophenol
	4-Chloro-3-methylphenol		4-Chloro-3-methylphenol
	4-Methylphenol		4-Methylphenol
	4-Nitrophenol		4-Nitrophenol
	Pentachlorophenol		Pentachlorophenol
	Phenol		Phenol

Product No. Packed in 1ml Ampoule	Description - Each at 1000µg/ml in Purge & Trap Methanol	Product No. Packed in 1ml Ampoule	Description - Each at 2000µg/ml in Methylene Chloride
REPHE020 (12 compound mix)	2,4,6-Trichlorophenol	REPHE023 (12 compound mix)	2,4,6-Trichlorophenol
	2,4-Dichlorophenol		2,4-Dichlorophenol
	2,4-Dimethylphenol		2,4-Dimethylphenol
	2,4-Dinitrophenol		2,4-Dinitrophenol
	2-Chlorophenol		2-Chlorophenol
	2-Methyl-4,6-dinitrophenol (DNOC)		2-Methyl-4,6-dinitrophenol (DNOC)
	2-Nitrophenol		2-Methylphenol
	3-Methylphenol		2-Nitrophenol
	4-Chloro-3-methylphenol		4-Chloro-3-methylphenol
	4-Nitrophenol		4-Nitrophenol
	Pentachlorophenol		Pentachlorophenol
	Phenol		Phenol

Product No. Packed in 1ml Ampoule	Description - Each at 2000µg/ml in Isopropanol
REPHE024 (11 compound mix)	2,4,6-Trichlorophenol
	2,4-Dichlorophenol
	2,4-Dimethylphenol
	2,4-Dinitrophenol
	2-Chlorophenol
	2-Methyl-4,6-dinitrophenol (DNOC)
	2-Nitrophenol
	4-Chloro-3-methylphenol
	4-Nitrophenol
	Pentachlorophenol
	Phenol

Product No. Packed in 1ml Ampoule	Description - Each at 500µg/ml in Purge & Trap Methanol
REPHE026 (11 compound mix)	2,4,6-Trichlorophenol
	2,4-Dichlorophenol
	2,4-Dimethylphenol
	2,4-Dinitrophenol
	2-Chlorophenol
	2-Methyl-4,6-dinitrophenol (DNOC)
	2-Nitrophenol
	4-Chloro-3-methylphenol
	4-Nitrophenol
	Pentachlorophenol
	Phenol

Product No. Packed in 1ml Ampoule	Description - Each at 20µg/ml in Purge & Trap Methanol
REPHE028 (11 compound mix)	2,4,6-Trichlorophenol
	2,4-Dichlorophenol
	2,4-Dimethylphenol
	2,4-Dinitrophenol
	2-Chlorophenol
	2-Methyl-4,6-dinitrophenol (DNOC)
	2-Nitrophenol
	4-Chloro-3-methylphenol
	4-Nitrophenol
	Pentachlorophenol
	Phenol

Product No. Packed in 1ml Ampoule	Description - Each at 1,000µg/ml in Purge & Trap Methanol
REPHE029 (11 compound mix)	2,4,6-Trichlorophenol
	2,4-Dichlorophenol
	2,4-Dimethylphenol
	2,4-Dinitrophenol
	2-Chlorophenol
	2-Methyl-4,6-dinitrophenol (DNOC)
	2-Nitrophenol
	4-Chloro-3-methylphenol
	4-Nitrophenol
	Pentachlorophenol
	Phenol

Product No. Packed in 1ml Ampoule	Description - Each at 500µg/ml in Purge & Trap Methanol
REPHE030 (11 compound mix)	2,4-Dichlorophenol
	2,4-Dimethylphenol
	2,4-Dinitrophenol
	2-Chlorophenol
	2-Methyl-4,6-dinitrophenol (DNOC)
	2-Nitrophenol
	2-sec-Butyl-4,6-dinitrophenol (Dinoseb)
	4-Chloro-3-methylphenol
	4-Nitrophenol
	Pentachlorophenol
	Phenol

Product No. Packed in 1ml Ampoule	Description - Each at 2000µg/ml in Methylene Chloride
REPHE030 (11 compound mix)	2,4,6-Trichlorophenol
	2,4-Dichlorophenol
	2,4-Dimethylphenol
	2,4-Dinitrophenol
	2-Chlorophenol
	2-Nitrophenol
	2-sec-Butyl-4,6-dinitrophenol (Dinoseb)
	4-Chloro-3-methylphenol
	4-Nitrophenol
	Pentachlorophenol
	Phenol

Product No. Packed in 1ml Ampoule	Description - Each at 1000µg/ml in Methylene Chloride
REPHE034 (11 compound mix)	2,4,6-Trichlorophenol
	2,4-Dichlorophenol
	2,4-Dimethylphenol
	2,4-Dinitrophenol
	2-Chlorophenol
	2-Methyl-4,6-dinitrophenol (DNOC)
	2-Nitrophenol
	4-Chloro-3-methylphenol
	4-Nitrophenol
	Pentachlorophenol
	Phenol

Product No. Packed in 1ml Ampoule	Description - Each at 2000µg/ml in Methylene Chloride
REPHE037 (9 compound mix)	2,4,6-Trichlorophenol
	2,4-Dichlorophenol
	2,4-Dimethylphenol
	2-Chlorophenol
	2-Methylphenol
	2-Nitrophenol
	4-Chloro-3-methylphenol
	4-Methylphenol
	Phenol

Product No. Packed in 1ml Ampoule	Description - Each at 2000µg/ml in Purge & Trap Methanol
REPHE038 (8 compound mix)	2,4,6-Trichlorophenol
	2,4-Dichlorophenol
	2-Chlorophenol
	2-Methylphenol
	3-Methylphenol
	4-Methylphenol
	Pentachlorophenol
	Phenol

Product No. Packed in 1ml Ampoule	Description - Each at 100µg/ml in Purge & Trap Methanol
REPHE039 (8 compound mix)	2,4,6-Trichlorophenol
	2,4-Dichlorophenol
	2-Chlorophenol
	2-Methyl-4,6-dinitrophenol (DNOC)
	3-Methylphenol
	4-Methylphenol
	Pentachlorophenol
	Phenol

Product No. Packed in 1ml Ampoule	Description - Each at 2000µg/ml in Isopropanol
REPHE040 (7 compound mix)	2,3,4,6-Tetrachlorophenol
	2,4,5-Trichlorophenol
	2,6-Dichlorophenol
	2-Methylphenol
	2-sec-Butyl-4,6-dinitrophenol (Dinoseb)
	3-Methylphenol
	4-Methylphenol

Product No. Packed in 1ml Ampoule	Description - Each at 2000µg/ml in Methylene Chloride
REPHE041 (6 compound mix)	2,4,6-Trichlorophenol
	2,4-Dichlorophenol
	2-Nitrophenol
	4-Chloro-3-methylphenol
	Pentachlorophenol
	Phenol

Product No. Packed in 1ml Ampoule	Description - Each at 2000µg/ml in Purge & Trap Methanol
REPHE042 (5 compound mix)	2-Chlorophenol
	4-Chloro-3-methylphenol
	4-Nitrophenol
	Pentachlorophenol
	Phenol

Product No. Packed in 1ml Ampoule	Description - Each at 2000µg/ml in Methylene Chloride
REPHE045 (5 compound mix)	2,4-Dimethylphenol
	2-Methyl-4,6-dinitrophenol (DNOC)
	2-Nitrophenol
	4-Nitrophenol
	Phenol

Product No. Packed in 1ml Ampoule	Description - Each at 2000µg/ml Methylene Chloride
REPHE046 (5 compound mix)	2,4,5-Trichlorophenol
	2-Methylphenol
	2-sec-Butyl-4,6-dinitrophenol (Dinoseb)
	3-Methylphenol
	4-Methylphenol

Product No. Packed in 1ml Ampoule	Description - Each at 100µg/ml in Purge & Trap Methanol
REPHE047 (4 compound mix)	2,3,4,6-Tetrachlorophenol
	2,4,6-Trichlorophenol
	2,4-Dichlorophenol
	Pentachlorophenol

Product No. Packed in 1ml Ampoule	Description - Each at 4000µg/ml in Methylene Chloride
REPHE048 (4 compound mix)	2,4-Dinitrophenol
	2-Methyl-4,6-dinitrophenol (DNOC)
	4-Nitrophenol
	Pentachlorophenol

Product No. Packed in 1ml Ampoule	Description - Each at 2000µg/ml in Ethanol
REPHE050 (3 compound mix)	2,3,4,6-Tetrachlorophenol
	2,4,6-Trichlorophenol
	Pentachlorophenol

Product No. Packed in 1ml Ampoule	Description - Each in Purge & Trap Methanol	Concentration µg/ml
REPHE022 (12 compound mix)	2,4,6-Trichlorophenol	100
	2,4-Dichlorophenol	100
	2,4-Dimethylphenol	100
	2,4-Dinitrophenol	500
	2-Chlorophenol	100
	2-Methyl-4,6-dinitrophenol (DNOC)	500
	2-Methylphenol	100
	2-Nitrophenol	100
	4-Chloro-3-methylphenol	100
	4-Nitrophenol	500
	Pentachlorophenol	500
	Phenol	100
REPHE025 (11 compound mix)	2,4,6-Trichlorophenol	500
	2,4-Dichlorophenol	500
	2,4-Dimethylphenol	500
	2,4-Dinitrophenol	1500
	2-Chlorophenol	500
	2-Methyl-4,6-dinitrophenol (DNOC)	2500
	2-Nitrophenol	500
	4-Chloro-3-methylphenol	2500
	4-Nitrophenol	2500
	Pentachlorophenol	2500
	Phenol	600
REPHE027 (11 compound mix)	2,4,6-Trichlorophenol	1500
	2,4-Dichlorophenol	500
	2,4-Dimethylphenol	500
	2,4-Dinitrophenol	1500
	2-Chlorophenol	500
	2-Methyl-4,6-dinitrophenol (DNOC)	2500
	2-Nitrophenol	500
	4-Chloro-3-methylphenol	2500
	4-Nitrophenol	2500
	Pentachlorophenol	2500
	Phenol	500
REPHE044 (5 compound mix)	2,4,6-Trichlorophenol	40
	2,4-Dichlorophenol	40
	3-Methylphenol	40
	4-Nitrophenol	10
	Pentachlorophenol	40

Product No. Packed in 1ml Ampoule	Description - Each in Methylene Chloride	Concentration µg/ml	US EPA Methods
REPHE019 (13 compound mix)	2,4,6-Trichlorophenol	1000	526
	2,4-Dichlorophenol	1000	528
	2,4-Dimethylphenol	1000	
	2,4-Dinitrophenol	5000	
	2,6-Dichlorophenol	1000	
	2-Chlorophenol	1000	
	2-Methyl-4,6-dinitrophenol (DNOC)	1000	
	2-Methylphenol	1000	
	2-Nitrophenol	1000	
	4-Chloro-3-methylphenol	1000	
	4-Nitrophenol	1000	
	Pentachlorophenol	1000	
	Phenol	1000	

Product No. Packed in 1ml Ampoule	Description - Each in Purge & Trap Methanol	Concentration µg/ml	US EPA Methods
REPHE021 (12 compound mix)	2,4-Dichlorophenol	1000	525
	2,4-Dimethylphenol	1000	
	2,4-Dinitrophenol	5000	
	2,6-Dichlorophenol	1000	
	2-Chlorophenol	1000	
	2-Methyl-4,6-dinitrophenol (DNOC)	5000	
	2-Methylphenol	1000	
	2-Nitrophenol	1000	
	4-Chloro-3-methylphenol	1000	
	4-Nitrophenol	1000	
	Pentachlorophenol	1000	
	Phenol	1000	

Product No. Packed in 1ml Ampoule	Description - Each in Methylene Chloride	Concentration µg/ml	US EPA Methods
REPHE032 (11 compound mix)	2,4,6-Trichlorophenol	1500	604
	2,4-Dichlorophenol	500	625
	2,4-Dimethylphenol	500	
	2,4-Dinitrophenol	1500	
	2-Chlorophenol	500	
	2-Nitrophenol	500	
	2-sec-Butyl-4,6-dinitrophenol (Dinoseb)	2500	
	4-Chloro-3-methylphenol	2000	
	4-Nitrophenol	2500	
	Pentachlorophenol	2500	
	Phenol	500	

Product No. Packed in 1ml Ampoule	Description - Each at 2000µg/ml in Methylene Chloride	US EPA Methods
REPHE033 (11 compound mix)	2,4-Dichlorophenol	8270B
	2,4-Dimethylphenol	
	2,4-Dinitrophenol	
	2-Chlorophenol	
	2-Methyl-4,6-dinitrophenol (DNOC)	
	2-Nitrophenol	
	2-sec-Butyl-4,6-dinitrophenol (Dinoseb)	
	4-Chloro-3-methylphenol	
	4-Nitrophenol	
	Pentachlorophenol	
	Phenol	

Product No. Packed in 1ml Ampoule	Description - Each at 100µg/ml in Purge & Trap Methanol	US EPA Methods
REPHE035 (10 compound mix)	2,4,6-Trichlorophenol	625
	2,4-Dichlorophenol	
	2,4-Dimethylphenol	
	2,4-Dinitrophenol	
	2,6-Dichlorophenol	
	2-Chlorophenol	
	4-Chloro-3-methylphenol	
	4-Nitrophenol	
	Pentachlorophenol	
	Phenol	

Product No. Packed in 1ml Ampoule	Description - Each at 2000µg/ml in Isopropanol	US EPA Methods
REPHE036 (9 compound mix)	2,3,4,6-Tetrachlorophenol	8040
	2,4,5-Trichlorophenol	
	2,4-Dimethylphenol	
	2,4-Dinitrophenol	
	2,6-Dichlorophenol	
	2-Chlorophenol	
	2-sec-Butyl-4,6-dinitrophenol (Dinoseb)	
	3-Methylphenol	
	4-Methylphenol	

Product No. Packed in 1ml Ampoule	Description - Each at 1000µg/ml in Methylene Chloride	US EPA Methods
REPHE049 (4 compound mix)	2,4,6-Trichlorophenol	525
	2,6-Dichlorophenol	
	2-Methyl-4,6-dinitrophenol (DNOC)	
	Phenol	

Phenols Single Compound Standards

Product No.	Description	Concentration	US EPA Methods	Packed in Ampoule
REPHE101	2-Chlorophenol	2000µg/ml in high-purity Methanol	604, 627, 8270, 1311	1ml
REPHE102	2,4-Dichlorophenol	2000µg/ml in high-purity Methanol	604, 627, 8270, 1311	1ml
REPHE103	2,4-Dimethylphenol	2000µg/ml in high-purity Methanol	604, 627, 8270, 1311	1ml
REPHE104	4-Chloro-3-methylphenol	2000µg/ml in high-purity Methanol	604, 627, 8270, 1311	1ml
REPHE105	2-Methyl-4,6-dinitrophenol(DNOC)	2000µg/ml in high-purity Methanol	604, 627, 8270, 1311	1ml
REPHE106	2,4-Dinitrophenol	2000µg/ml in high-purity Methanol	604, 627, 8270, 1311	1ml
REPHE107	2-Nitrophenol	2000µg/ml in high-purity Methanol	604, 627, 8270, 1311	1ml
REPHE108	4-Nitrophenol	2000µg/ml in high-purity Methanol	604, 627, 8270, 1311	1ml
REPHE109	Pentachlorophenol	2000µg/ml in high-purity Methanol	604, 627, 8270, 1311	1ml
REPHE110	Phenol	2000µg/ml in high-purity Methanol	604, 627, 8270, 1311	1ml
REPHE119	Phenol	100µg/ml in Methylene Chloride	604, 627, 8270, 1311	1ml
REPHE111	2,4,6-Trichlorophenol	2000µg/ml in high-purity Methanol	604, 627, 8270, 1311	1ml
REPHE112	2,4,5-Trichlorophenol	2000µg/ml in high-purity Methanol	604, 627, 8270, 1311	1ml
REPHE113	2,3,4,6-Tetrachlorophenol	2000µg/ml in high-purity Methanol	604, 627, 8270, 1311	1ml
REPHE114	2,6-Dichlorophenol	2000µg/ml in high-purity Methanol	604, 627, 8270, 1311	1ml
REPHE115	2-Methylphenol	2000µg/ml in high-purity Methanol	604, 627, 8270, 1311	1ml
REPHE116	3-Methylphenol	2000µg/ml in high-purity Methanol	604, 627, 8270, 1311	1ml
REPHE117	4-Methylphenol	2000µg/ml in high-purity Methanol	604, 627, 8270, 1311	1ml
REPHE118	Dinoseb	2000µg/ml in high-purity Methanol	604, 627, 8270, 1311	1ml

Phenol Surrogate Standards

Product No.	Description	Concentration	US EPA Methods	Packed in Ampoule
REPHE001-S	2-Fluorobiphenyl	1000µg/ml	625	1ml
	Nitrobenzene D5	1000µg/ml		
	p-Terphenyl-D14	1000µg/ml		
	Methyl Orange	2500µg/ml		
	In 1:1 Dichloromethane:Acetone			
REPHE005-S	2-Fluorobiphenyl	5000µg/ml	625	1ml
	Nitrobenzene D5	5000µg/ml		
	p-Terphenyl-D14	5000µg/ml		
	Methyl Orange	12500µg/ml		
	In 1:1 Dichloromethane:Acetone			

Polycyclic Aromatic Hydrocarbons (PAHs)



Summary of Features & Benefits:

Commercial Benefits

- Ready to use (dilute for use as calibration and/or quality control standards)
- Extensive range of organic compound mixes and single compound standards available
- Can be used with a variety of instruments including GC, GC-MS, HPLC and LC-MS
- Designed specifically for use in EPA or EU analytical methods
- Presented in high quality amber ampoules
- Customised formulations available

Technical Benefits

- Produced in accordance with EPA methods
- Consistency of product - Independent, Traceable, Certified
- Ideal for use in EPA 500, 600 and 8000 series methods
- Compound mix REPAH008 designed specifically for use in EPA 8310 method
- Certificates of Analysis and Safety Data Sheets available online

These products are prepared gravimetrically on a weight/weight basis. Both solute and solvent are weighed on a balance calibrated by Reagecon engineers using OIML traceable weights. Reagecon holds ISO 17025 accreditation for calibration of laboratory balances (INAB ref: 265C). The resulting Balance Certificate of Calibration is issued in accordance with the requirements of ISO/IEC 17025. The concentration of each standard is verified using an ISO 17025 accredited test method on a high performance calibrated Gas Chromatograph - Mass Spectrometer (GC-MS Instrument). The calibration of the GC-MS instrument is completed using high purity ISO Guide 34 accredited PAH standards similar in PAH concentration value to these products. The mass spectrum of each of the analytes is confirmed by comparison with the National Institute of Standards and Technology (NIST) mass spectral library.



Polycyclic Aromatic Hydrocarbons (PAHs) Multi Compound Standards

Product No.	Description	Concentration	US EPA Methods	Packed in Ampoule
REPAH001 (16 Compound Mix)	Acenaphthene	Each analyte at 2,000µg/ml	610	1ml
	Anthracene	in high-purity	625	
	Benzo(a)anthracene	Benzene: Dichloromethane	8100	
	Chrysene	(Methylene Chloride)		
	Flouroanthene			
	Fluorene			
	Naphthalene			
	Phenanthrene			
	Pyrene			
	Benzo(a)pyrene			
	Benzo(b)flouroanthene			
	Benzo(g,h,i)perylene			
	Dibenzo(a,h)anthracene			
	Benzo(k)fluoroanthene			
	Indeno(1,2,3-cd)pyrene			
	Acenaphthylene			
REPAH002 (16 Compound Mix)	Acenaphthene	Each analyte at 1,000µg/ml	610	1ml
	Anthracene	in high-purity	625	
	Benzo(a)anthracene	Benzene:Dichloromethane	8100	
	Chrysene	(Methylene Chloride)		
	Flouroanthene			
	Fluorene			
	Naphthalene			
	Phenanthrene			
	Pyrene			
	Benzo(a)pyrene			
	Benzo(b)flouroanthene			
	Benzo(g,h,i)perylene			
	Dibenzo(a,h)anthracene			
	Benzo(k)fluoroanthene			
	Indeno(1,2,3-cd)pyrene			
	Acenaphthylene			

Product No. Packed in 1ml Ampoule	Description - Each in Acetonitrile	Concentration µg/ml	US EPA Methods
REPAH017 (16 compound mix)	Acenaphthene	100	550
	Anthracene	100	
	Acenaphthylene	50	
	Benzo(a)anthracene	1	
	Benzo(a)pyrene	5	
	Benzo(b)flouroanthene	1	
	Benzo(g,h,i)perylene	5	
	Dibenzo(a,h)anthracene	1	
	Benzo(k)fluoroanthene	50	
	Chrysene	10	
	Flouroanthene	3	
	Fluorene	100	
	Indeno(1,2,3-cd)pyrene	10	
	Naphthalene	1000	
	Phenanthrene	50	
	Pyrene	50	

Polycyclic Aromatic Hydrocarbons (PAHs) Multi Compound Standards

Product No.	Description	Concentration	US EPA Methods	Packed in Ampoule
REPAH004 (16 Compound Mix)	Acenaphthene	Each analyte at 1,000µg/ml in high-purity Toluene	610	1ml
	Anthracene		625	
	Benzo(a)anthracene			
	Chrysene			
	Fluoroanthene			
	Fluorene			
	Naphthalene			
	Phenanthrene			
	Pyrene			
	Benzo(a)pyrene			
	Benzo(b)fluoroanthene			
	Benzo(g,h,i)perylene			
	Dibenzo(a,h)anthracene			
	Benzo(k)fluoroanthene			
	Indeno(1,2,3-cd)pyrene			
	Acenaphthylene			
REPAH005 (16 Compound Mix)	Acenaphthene	Each analyte at 100µg/ml in high-purity Acetone	610	1ml
	Anthracene		625	
	Benzo(a)anthracene		8100	
	Chrysene			
	Flouroanthene			
	Fluorene			
	Naphthalene			
	Phenanthrene			
	Pyrene			
	Benzo(a)pyrene			
	Benzo(b)fluoroanthene			
	Benzo(g,h,i)perylene			
	Dibenzo(a,h)anthracene			
	Benzo(k)fluoroanthene			
	Indeno(1,2,3-cd)pyrene			
	Acenaphthylene			
REPAH006 (16 Compound Mix)	Acenaphthene	Each analyte at 2,000µg/ml in high-purity Toluene	610	1ml
	Anthracene		625	
	Benzo(a)anthracene		8100	
	Chrysene			
	Flouroanthene			
	Fluorene			
	Naphthalene			
	Phenanthrene			
	Pyrene			
	Benzo(a)pyrene			
	Benzo(b)fluoroanthene			
	Benzo(g,h,i)perylene			
	Dibenzo(a,h)anthracene			
	Benzo(k)fluoroanthene			
	Indeno(1,2,3-cd)pyrene			
	Acenaphthylene			

Polycyclic Aromatic Hydrocarbons (PAHs) Multi Component Standards

Product No.	Description	Concentration	US EPA Methods	Packed in Ampoule
REPAH007 (16 Compound Mix)	Acenaphthene	Each analyte at 500µg/ml in high-purity Toluene	610	1ml
	Anthracene		625	
	Benzo(a)anthracene		8100	
	Chrysene			
	Flouroanthene			
	Fluorene			
	Naphthalene			
	Phenanthrene			
	Pyrene			
	Benzo(a)pyrene			
	Benzo(b)flouroanthene			
	Benzo(g,h,i)perylene			
	Dibenzo(a,h)anthracene			
	Benzo(k)fluoroanthene			
	Indeno(1,2,3-cd)pyrene			
	Acenaphthylene			

Product No. Packed in 1ml Ampoule	Description - Each in Acetonitrile	Concentration µg/ml
REPAH010 (16 compound mix)	Acenaphthene	100
	Anthracene	10
	Acenaphthylene	100
	Benzo(a)anthracene	10
	Benzo(a)pyrene	10
	Benzo(b)flouroanthene	10
	Benzo(g,h,i)perylene	10
	Dibenzo(a,h)anthracene	10
	Benzo(k)fluoroanthene	10
	Chrysene	10
	Flouroanthene	10
	Fluorene	10
	Indeno(1,2,3-cd)pyrene	10
	Naphthalene	100
	Phenanthrene	10
	Pyrene	10

Product No. Packed in 1ml Ampoule	Description - Each in Acetonitrile	Concentration µg/ml
REPAH011 (16 compound mix)	Acenaphthene	100
	Anthracene	10
	Acenaphthylene	200
	Benzo(a)anthracene	10
	Benzo(a)pyrene	10
	Benzo(b)fluoranthene	20
	Benzo(g,h,i)perylene	20
	Dibenzo(a,h)anthracene	20
	Benzo(k)fluoranthene	10
	Chrysene	10
	Fluoranthene	20
	Fluorene	20
	Indeno(1,2,3-cd)pyrene	10
	Naphthalene	100
	Phenanthrene	10
	Pyrene	10
REPAH012 (16 compound mix)	Acenaphthene	100
	Anthracene	400
	Acenaphthylene	40
	Benzo(a)anthracene	1000
	Benzo(a)pyrene	400
	Benzo(b)fluoranthene	2000
	Benzo(g,h,i)perylene	20
	Dibenzo(a,h)anthracene	20
	Benzo(k)fluoranthene	400
	Chrysene	1000
	Fluoranthene	10
	Fluorene	20
	Indeno(1,2,3-cd)pyrene	20
	Naphthalene	40
	Phenanthrene	10
	Pyrene	10
REPAH014 (16 compound mix)	Acenaphthene	1000
	Anthracene	63
	Acenaphthylene	1000
	Benzo(a)anthracene	1
	Benzo(a)pyrene	5
	Benzo(b)fluoranthene	1
	Benzo(g,h,i)perylene	5
	Dibenzo(a,h)anthracene	13
	Benzo(k)fluoranthene	1
	Chrysene	63
	Fluoranthene	3
	Fluorene	100
	Indeno(1,2,3-cd)pyrene	13
	Naphthalene	1000
	Phenanthrene	50
	Pyrene	63

Product No. Packed in 1ml Ampoule	Description - Each in Acetonitrile	Concentration µg/ml
REPAH015 (16 compound mix)	Acenaphthene	100
	Anthracene	100
	Acenaphthylene	100
	Benzo(a)anthracene	10
	Benzo(a)pyrene	10
	Benzo(b)fluoroanthene	10
	Benzo(g,h,i)perylene	10
	Dibenzo(a,h)anthracene	10
	Benzo(k)fluoroanthene	5
	Chrysene	10
	Fluoroanthene	10
	Fluorene	100
	Indeno(1,2,3-cd)pyrene	10
	Naphthalene	100
	Phenanthrene	100
	Pyrene	10

Product No. Packed in 1ml Ampoule	Description - Each in Acetonitrile	Concentration µg/ml
REPAH016 (16 compound mix)	Acenaphthene	20
	Anthracene	1
	Acenaphthylene	15
	Benzo(a)anthracene	4
	Benzo(a)pyrene	5
	Benzo(b)fluoroanthene	4
	Benzo(g,h,i)perylene	4
	Dibenzo(a,h)anthracene	4
	Benzo(k)fluoroanthene	5
	Chrysene	4
	Fluoroanthene	8
	Fluorene	5
	Indeno(1,2,3-cd)pyrene	5
	Naphthalene	20
	Phenanthrene	4
	Pyrene	9

Product No. Packed in 1ml Ampoule	Description - Each in Methylene Chloride	Concentration µg/ml
REPAH020 (16 compound mix)	Acenaphthene	100
	Anthracene	100
	Acenaphthylene	200
	Benzo(a)anthracene	100
	Benzo(a)pyrene	100
	Benzo(b)fluoroanthene	200
	Benzo(g,h,i)perylene	200
	Dibenzo(a,h)anthracene	200
	Benzo(k)fluoroanthene	100
	Chrysene	100
	Fluoroanthene	200
	Fluorene	200
	Indeno(1,2,3-cd)pyrene	100
	Naphthalene	1000
	Phenanthrene	100
	Pyrene	100

Product No. Packed in 1ml Ampoule	Description - Each in Methylene Chloride	Concentration µg/ml
REPAH021 (16 compound mix)	Acenaphthene	1000
	Anthracene	1000
	Acenaphthylene	1000
	Benzo(a)anthracene	100
	Benzo(a)pyrene	100
	Benzo(b)fluoranthene	100
	Benzo(g,h,i)perylene	100
	Dibenzo(a,h)anthracene	100
	Benzo(k)fluoranthene	50
	Chrysene	100
	Fluoranthene	100
	Fluorene	1000
	Indeno(1,2,3-cd)pyrene	100
	Naphthalene	1000
	Phenanthrene	1000
	Pyrene	100

Product No. Packed in 1ml Ampoule	Description - Each in Acetonitrile	Concentration µg/ml
REPAH027 (13 compound mix)	Anthracene	50
	Benzo(a)anthracene	50
	Benzo(a)pyrene	50
	Benzo(b)fluoranthene	100
	Benzo(g,h,i)perylene	100
	Dibenzo(a,h)anthracene	100
	Benzo(k)fluoranthene	50
	Chrysene	50
	Fluoranthene	100
	Fluorene	100
	Indeno(1,2,3-cd)pyrene	50
	Phenanthrene	50
	Pyrene	50

Product No. Packed in 1ml Ampoule	Description - Each in Acetonitrile	Concentration µg/ml
REPAH032 (9 compound mix)	Acenaphthylene	400
	Benzo(g,h,i)perylene	200
	Dibenzo(a,h)anthracene	200
	Fluoranthene	100
	Fluorene	200
	Indeno(1,2,3-cd)pyrene	100
	Naphthalene	400
	Phenanthrene	100
	Pyrene	100

Product No. Packed in 1ml Ampoule	Description - Each in Acetonitrile	Concentration µg/ml
REPAH033 (8 compound mix)	Anthracene	100
	Benzo(a)anthracene	10
	Benzo(a)pyrene	10
	Benzo(b)fluoranthene	10
	Benzo(g,h,i)perylene	10
	Chrysene	10
	Fluoranthene	10
	Phenanthrene	100

Product No. Packed in 1ml Ampoule	Description - Each in Acetonitrile	Concentration µg/ml
REPAH034 (7 compound mix)	Anthracene	100
	Acenaphthylene	100
	Dibenzo(a,h)anthracene	5
	Benzo(k)fluoroanthene	10
	Indeno(1,2,3-cd)pyrene	10
	Naphthalene	100
	Pyrene	10

Product No. Packed in 1ml Ampoule	Description - 100µg/ml Each in Acetonitrile	Product No. Packed in 1ml Ampoule	Description - 10µg/ml Each in Acetonitrile
REPAH035 (6 compound mix)	Benzo(a)pyrene	REPAH036 (6 compound mix)	Benzo(a)pyrene
	Benzo(b)fluoroanthene		Benzo(b)fluoroanthene
	Benzo(g,h,i)perylene		Benzo(g,h,i)perylene
	Benzo(k)fluoroanthene		Benzo(k)fluoroanthene
	Fluoroanthene		Fluoroanthene
	Indeno(1,2,3-cd)pyrene		Indeno(1,2,3-cd)pyrene

Product No. Packed in 1ml Ampoule	Description - 2µg/ml Each in Acetonitrile	Product No. Packed in 1ml Ampoule	Description - 200µg/ml Each in Acetonitrile
REPAH037 (6 compound mix)	Benzo(a)pyrene	REPAH038 (5 compound mix)	Anthracene
	Benzo(b)fluoroanthene		Benzo(a)pyrene
	Benzo(g,h,i)perylene		Chrysene
	Dibenzo(a,h)anthracene		Phenanthrene
	Fluoroanthene		Pyrene
	Indeno(1,2,3-cd)pyrene		

Product No. Packed in 1ml Ampoule	Description - 100µg/ml Each in Methylene Chloride	Product No. Packed in 1ml Ampoule	Description - 2000µg/ml Each in Methylene Chloride
REPAH039 (5 compound mix)	Benzo(a)pyrene	REPAH040 (5 compound mix)	Benzo(a)anthracene
	Benzo(b)fluoroanthene		Benzo(a)pyrene
	Benzo(g,h,i)perylene		Fluorene
	Benzo(k)fluoroanthene		Naphthalene
	Indeno(1,2,3-cd)pyrene		Phenanthrene

Product No. Packed in 1ml Ampoule	Description - 100µg/ml Each in Acetonitrile	Product No. Packed in 1ml Ampoule	Description - 10µg/ml Each in Acetonitrile
REPAH041 (5 compound mix)	Acenaphthene	REPAH013 (16 compound mix)	Acenaphthene
	Anthracene		Anthracene
	Benzo(a)pyrene		Acenaphthylene
	Chrysene		Benzo(a)anthracene
	Pyrene		Benzo(a)pyrene
			Benzo(b)fluoroanthene
			Benzo(g,h,i)perylene
			Dibenzo(a,h)anthracene
			Benzo(k)fluoroanthene
			Chrysene
			Fluoroanthene
			Fluorene
			Indeno(1,2,3-cd)pyrene
			Naphthalene
			Phenanthrene
			Pyrene

Product No. Packed in 1ml Ampoule	Description - 20µg/ml Each in Methylene Chloride	Product No. Packed in 1ml Ampoule	Description - 100µg/ml Each in Methylene Chloride
REPAH018 (16 compound mix)	Acenaphthene	REPAH019 (16 compound mix)	Acenaphthene
	Anthracene		Anthracene
	Acenaphthylene		Acenaphthylene
	Benzo(a)anthracene		Benzo(a)anthracene
	Benzo(a)pyrene		Benzo(a)pyrene
	Benzo(b)fluoroanthene		Benzo(b)fluoroanthene
	Benzo(g,h,i)perylene		Benzo(g,h,i)perylene
	Dibenzo(a,h)anthracene		Dibenzo(a,h)anthracene
	Benzo(k)fluoroanthene		Benzo(k)fluoroanthene
	Chrysene		Chrysene
	Flouroanthene		Flouroanthene
	Fluorene		Fluorene
	Indeno(1,2,3-cd)pyrene		Indeno(1,2,3-cd)pyrene
	Naphthalene		Naphthalene
	Phenanthrene		Phenanthrene
	Pyrene		Pyrene

Product No. Packed in 1ml Ampoule	Description - 10µg/ml Each in Acetonitrile	Product No. Packed in 1ml Ampoule	Description - 10µg/ml Each in Acetonitrile
REPAH022 (15 compound mix)	Acenaphthene	REPAH023 (15 compound mix)	Anthracene
	Acenaphthylene		Acenaphthylene
	Benzo(a)anthracene		Benzo(a)anthracene
	Benzo(a)pyrene		Benzo(a)pyrene
	Benzo(b)fluoroanthene		Benzo(b)fluoroanthene
	Benzo(g,h,i)perylene		Benzo(g,h,i)perylene
	Dibenzo(a,h)anthracene		Dibenzo(a,h)anthracene
	Benzo(k)fluoroanthene		Benzo(k)fluoroanthene
	Chrysene		Chrysene
	Flouroanthene		Flouroanthene
	Fluorene		Fluorene
	Indeno(1,2,3-cd)pyrene		Indeno(1,2,3-cd)pyrene
	Naphthalene		Naphthalene
	Phenanthrene		Phenanthrene
	Pyrene		Pyrene

Product No. Packed in 1ml Ampoule	Description - 50µg/ml Each in Acetonitrile	Product No. Packed in 1ml Ampoule	Description - 100µg/ml Each in Acetonitrile
REPAH028 (13 compound mix)	Acenaphthene	REPAH029 (10 compound mix)	Benzo(a)anthracene
	Anthracene		Benzo(a)pyrene
	Acenaphthylene		Benzo(b)fluoranthene
	Benzo(a)anthracene		Benzo(g,h,i)perylene
	Benzo(a)pyrene		Dibenzo(a,h)anthracene
	Benzo(g,h,i)perylene		Benzo(k)fluoranthene
	Dibenzo(a,h)anthracene		Chrysene
	Benzo(k)fluoranthene		Fluoranthene
	Chrysene		Indeno(1,2,3-cd)pyrene
	Fluoranthene		Pyrene
	Fluorene		
	Indeno(1,2,3-cd)pyrene		
	Naphthalene		

Product No. Packed in 1ml Ampoule	Description - 2000µg/ml Each in Methylene Chloride	Product No. Packed in 1ml Ampoule	Description - 2000µg/ml Each in Methylene Chloride
REPAH030 (10 compound mix)	Benzo(a)anthracene	REPAH031 (10 compound mix)	Benzo(a)anthracene
	Benzo(a)pyrene		Benzo(a)pyrene
	Benzo(b)fluoranthene		Benzo(b)fluoranthene
	Dibenzo(a,h)anthracene		Dibenzo(a,h)anthracene
	Benzo(k)fluoranthene		Chrysene
	Fluoranthene		Fluoranthene
	Indeno(1,2,3-cd)pyrene		Indeno(1,2,3-cd)pyrene
	Naphthalene		Naphthalene
	Phenanthrene		Phenanthrene
	Pyrene		Pyrene

Product No. Packed in 1ml Ampoule	Description	Concentration µg/ml	US EPA Methods	Packed in Ampoule
REPAH003 (16 Compound Mix)	Acenaphthene	1000µg/ml	610	1ml
	Anthracene	100µg/ml	625	
	Benzo(a)anthracene	100µg/ml	8100	
	Chrysene	100µg/ml		
	Fluoranthene	200µg/ml		
	Fluorene	200µg/ml		
	Naphthalene	1000µg/ml		
	Phenanthrene	100µg/ml		
	Pyrene	100µg/ml		
	Benzo(a)pyrene	100µg/ml		
	Benzo(b)fluoranthene	200µg/ml		
	Benzo(g,h,i)perylene	200µg/ml		
	Dibenzo(a,h)anthracene	200µg/ml		
	Benzo(k)fluoranthene	100µg/ml		
	Indeno(1,2,3-cd)pyrene	100µg/ml		
	Acenaphthylene	2000µg/ml		
		Each in Methanol:		
		Acetone 1:1		

Product No.	Description	Concentration	US EPA Methods	Packed in Ampoule
REPAH008 (16 Compound Mix for EPA 8310 HPLC-UV/FLV)	Acenaphthene	1000µg/ml	8310	1ml
	Anthracene	50µg/ml		
	Benzo(a)anthracene	1µg/ml		
	Chrysene	50µg/ml		
	Fluoranthene	50µg/ml		
	Fluorene	100µg/ml		
	Naphthalene	1000µg/ml		
	Phenanthrene	50µg/ml		
	Pyrene	50µg/ml		
	Benzo(a)pyrene	5µg/ml		
	Benzo(b)fluoranthene	1µg/ml		
	Benzo(g,h,i)perylene	5µg/ml		
	Dibenzo(a,h)anthracene	10µg/ml		
	Benzo(k)fluoranthene	1µg/ml		
	Indeno(1,2,3-cd)pyrene	10µg/ml		
	Acenaphthylene	1000µg/ml		
		Each analyte at above		
		concentrations in		
		high-purity Acetonitrile		

Product No. Packed in 1ml Ampoule	Description - 100µg/ml Each in Acetone	US EPA Methods
REPAH024 (13 compound mix)	Anthracene	525
	Acenaphthylene	
	Benzo(a)anthracene	
	Benzo(a)pyrene	
	Benzo(b)fluoranthene	
	Benzo(g,h,i)perylene	
	Dibenzo(a,h)anthracene	
	Benzo(k)fluoranthene	
	Chrysene	
	Fluorene	
	Indeno(1,2,3-cd)pyrene	
	Phenanthrene	
	Pyrene	

Product No. Packed in 1ml Ampoule	Description - 1000µg/ml Each in Acetone	US EPA Methods
REPAH025 (13 compound mix)	Anthracene	525
	Acenaphthylene	
	Benzo(a)anthracene	
	Benzo(a)pyrene	
	Benzo(b)fluoranthene	
	Benzo(g,h,i)perylene	
	Dibenzo(a,h)anthracene	
	Benzo(k)fluoranthene	
	Chrysene	
	Fluorene	
	Indeno(1,2,3-cd)pyrene	
	Phenanthrene	
	Pyrene	

Product No. Packed in 1ml Ampoule	Description - 500µg/ml Each in Acetone	US EPA Methods
REPAH026 (13 compound mix)	Anthracene	525
	Acenaphthylene	
	Benzo(a)anthracene	
	Benzo(a)pyrene	
	Benzo(b)fluoranthene	
	Benzo(g,h,i)perylene	
	Dibenzo(a,h)anthracene	
	Benzo(k)fluoranthene	
	Chrysene	
	Fluorene	
	Indeno(1,2,3-cd)pyrene	
	Phenanthrene	
	Pyrene	

Polycyclic Aromatic Hydrocarbons (PAHs) Single Component Standards

Product No.	Description	Concentration	US EPA Methods	Packed in Ampoule
REPAH101	Acenaphthene	2000ug/ml in high-purity	610, 625	1ml
		Toluene	8100, 8310	
REPAH102	Anthracene	2,000µg/ml in high-purity	610, 625	1ml
		Toluene	8100, 8310	
REPAH103	Benzo(a)anthracene	2,000µg/ml in high-purity	610, 625	1ml
		Toluene	8100, 8310	
REPAH104	Chrysene	2,000µg/ml in high-purity	610, 625	1ml
		Toluene	8100, 8310	
REPAH105	Fluoranthene	2,000µg/ml in high-purity	610, 625	1ml
		Toluene	8100, 8310	
REPAH106	Fluorene	2,000µg/ml in high-purity	610, 625	1ml
		Toluene	8100, 8310	

Polycyclic Aromatic Hydrocarbons (PAHs) Single Component Standards

Product No.	Description	Concentration	US EPA Methods	Packed in Ampoule
REPAH107	Naphthalene	2,000µg/ml in high-purity	610, 625	1ml
		Toluene	8100, 8310	
REPAH108	Phenanthrene	2,000µg/ml in high-purity	610, 625	1ml
		Toluene	8100, 8310	
REPAH109	Pyrene	2,000µg/ml in high-purity	610, 625	1ml
		Toluene	8100, 8310	
REPAH110	Benzo(a)pyrene	2,000µg/ml in high-purity	610, 625	1ml
		Toluene	8100, 8310	
REPAH111	Benzo(b)fluoroanthene	2,000µg/ml in high-purity	610, 625	1ml
		Toluene	8100, 8310	
REPAH112	Benzo(g,h,i)perylene	2,000µg/ml in high-purity	610, 625	1ml
		Toluene	8100, 8310	
REPAH113	Dibenzo(a,h)anthracene	2,000µg/ml in high-purity	610, 625	1ml
		Toluene	8100, 8310	
REPAH114	Benzo(k)fluoroanthene	2,000µg/ml in high-purity	610, 625	1ml
		Toluene	8100, 8310	
REPAH115	Indeno(1,2,3-cd)pyrene	2,000µg/ml in high-purity	610, 625	1ml
		Toluene	8100, 8310	
REPAH116	Acenaphthylene	2,000µg/ml in high-purity	610, 625	1ml
		Toluene	8100, 8310	

Polycyclic Aromatic Hydrocarbons (PAHs) Internal Standards & Surrogates

Product No.	Description	Concentration	US EPA Methods	Packed in Ampoule
REPAH001-I (5 Compound)	Acenaphthylene D10	4,000ug/ml in high-purity	610	1ml
	Chrysene D12	Dichloromethane: Benzene	625	
	1,4-Dichlorobenzene D4		8100	
	Naphthalene D8			
	Perylene D12			
REPAH002-I (5 Compound)	Acenaphthylene D10	4,000ug/ml in high-purity	610	1ml
	Chrysene D12	Dichloromethane	625	
	1,4-Dichlorobenzene D4		8100	
	Naphthalene D8			
	Perylene D12			
REPAH001-S (2 Compound)	2-Fluorobiphenyl	2,000µg/ml in high-purity	610	1ml
	1-Fluoronaphthalene	Dichloromethane	625	
			8100	

Pesticides

Summary of Features & Benefits:

Commercial Benefits

- Ready to use (dilute for use as calibration and/or quality control standards)
- Extensive range of organic compound mixes and single compound standards available
- Can be used with a variety of instruments including GC, GC-MS, HPLC and LC-MS
- Designed specifically for use in EPA or EU analytical methods
- Presented in high quality amber ampoules
- Customised formulations available

Technical Benefits

- Produced in accordance with EPA methods
- Consistency of product - Independent, Traceable, Certified
- Ideal for use in EPA 500, 600 and 8000 series methods
Certificates of Analysis and Safety Data Sheets available online

These products are prepared gravimetrically on a weight/weight basis. Both solute and solvent are weighed on a balance calibrated by Reagecon engineers using OIML traceable weights. Reagecon holds ISO 17025 accreditation for calibration of laboratory balances (INAB ref: 265C). The resulting Balance Certificate of Calibration is issued in accordance with the requirements of ISO/IEC 17025. The concentration of each standard is verified using a high performance calibrated Liquid Chromatograph - Mass Spectrometer (LC-MS Instrument) or Gas Chromatograph - Mass Spectrometer (GC-MS Instrument). The calibration of both of these instruments are completed using high purity ISO Guide 34 accredited Pesticide standards similar in Pesticide concentration value to these products. The mass spectrum of each of the analytes is confirmed by comparison with the National Institute of Standards and Technology (NIST) mass spectral library.



Product No.	Description in Acetone	Concentration	US EPA Methods	Packed in Ampoule
REPET001 (16 Compound Mix)	Alachlor	50µg/ml	505	1ml
	Aldrin	5µg/ml		
	Atrazine	250µg/ml		
	Lindane (HCH-gamma)	5µg/ml		
	alpha-Chlorodane	5µg/ml		
	gamma-Chlorodane	5µg/ml		
	Dieldrin	5µg/ml		
	Endrin	5µg/ml		
	Heptachlor	5µg/ml		
	Heptachlor Epoxide	5µg/ml		
	Hexachlorobenzene	5µg/ml		
	Hexachlorocyclopentadiene	5µg/ml		
	Methoxychlor	25µg/ml		
	cis-Nonachlor	5µg/ml		
	trans-Nonachlor	5µg/ml		
	Simazine	250µg/ml		
REPET002 (16 Compound Mix Organohalide Pesticides)	Alachlor	50µg/ml	505	1ml
	Aldrin	5µg/ml		
	Atrazine	250µg/ml		
	Lindane (HCH-gamma)	5µg/ml		
	alpha-Chlorodane	5µg/ml		
	gamma-Chlorodane	5µg/ml		
	Dieldrin	10µg/ml		
	Endrin	10µg/ml		
	Heptachlor	5µg/ml		
	Heptachlor Epoxide	5 µg/ml		
	Hexachlorobenzene	5µg/ml		
	Hexachlorocyclopentadiene	15µg/ml		
	Methoxychlor	50µg/ml		
	cis-Nonachlor	10µg/ml		
	trans-Nonachlor	10µg/ml		
	Simazine	500µg/ml		
Product No.	Description	Concentration	US EPA Methods	Packed in Ampoule
REPET003 (18 Compound Mix Chlorinated Pesticides)	Aldrin	Each analyte at	508	1ml
	Lindane (HCH-gamma)	1000µg/ml in high-purity		
	HCH-alpha	Methyl-tert Butyl Ether		
	HCH-beta			
	HCH-delta			
	4,4'-DDD			
	4,4'-DDE			
	4,4'-DDT			
	Dieldrin			
	Endosulfan I (alpha)			
	Endosulfan II (beta)			
	Endosulfan Sulfate			
	Endrin			
	Endrin Aldehyde			
	Endrin Ketone			
	Heptachlor			
	Heptachlor Epoxide			
	Methoxychlor			

Product No.	Description in Methyl-tert Butyl Ether	Concentration	US EPA Methods	Packed in Ampoule
REPET004 (18 Compound Mix Chlorinated Pesticides)	Aldrin	5µg/ml	508	1ml
	Lindane (HCH-gamma)	5µg/ml		
	HCH-alpha	5µg/ml		
	HCH-beta	5µg/ml		
	HCH-delta	5µg/ml		
	4,4'-DDD	10µg/ml		
	4,4'-DDE	10µg/ml		
	4,4'-DDT	10µg/ml		
	Dieldrin	10µg/ml		
	Endosulfan I (alpha)	5µg/ml		
	Endosulfan II (beta)	10µg/ml		
	Endosulfan Sulfate	10µg/ml		
	Endrin	10µg/ml		
	Endrin Aldehyde	10µg/ml		
	Endrin Ketone	5µg/ml		
	Heptachlor	5µg/ml		
	Heptachlor Epoxide	5µg/ml		
	Methoxychlor	50µg/ml		
Product No.	Description	Concentration	US EPA Methods	Packed in Ampoule
REPET005 (12 Compound Mix Pesticides)	alpha-Chlorodane	Each analyte at 1000µg/ml	508	1ml
	gamma-Chlorodane	in high-purity Methyl-tert		
	Chlorbenzilate	Butyl Ether		
	Chlorneb			
	Chlorothalonil			
	DCPA			
	Etridiazole			
	Hexachlorobenzene			
	cis-Permethrin			
	trans-Permethrin			
	Propachlor			
	Trifluralin			
REPET006 (20 Compound Mix Pesticides)	Alachlor	Each analyte at 1000µg/ml	508.1	1ml
	Aldrin	in high-purity Ethyl Acetate		
	Butachlor			
	Lindane (HCH-gamma)			
	HCH-alpha			
	HCH-beta			
	HCH-delta			
	4,4'-DDD			
	4,4'-DDE			
	4,4'-DDT			
	Dieldrin			
	Endosulfan I (alpha)			
	Endosulfan II (beta)			
	Endosulfan Sulfate			
	Endrin			
	Endrin Aldehyde			
	Endrin Ketone			
	Heptachlor			
	Heptachlor Epoxide			
	Methoxychlor			

Product No.	Description	Concentration	US EPA Methods	Packed in Ampoule
REPET007 (16 Compound Mix Pesticides)	alpha-Chlorodane	Each analyte at 500µg/ml in high-purity Ethyl Acetate	508.1	1ml
	gamma-Chlorodane			
	Chlorbenzilate			
	Chlorneb			
	Chlorothalonil			
	Cyanazine			
	DCPA			
	Etridiazole			
	Hexachlorobenzene			
	Hexachlorocyclopentadiene			
	Metolachlor			
	Metribuzin			
	cis-Permethrin			
	trans-Permethrin			
	Propachlor			
	Trifluralin			
REPET009 (18 Compound Mix Pesticides)	Aldrin	Each analyte at 2,000µg/ml in high-purity Benzene	608	1ml
	Lindane (HCH-gamma)		617	
	HCH-alpha		8080A	
	HCH-beta		8081A	
	HCH-delta			
	4,4'-DDD			
	4,4'-DDE			
	4,4'-DDT			
	Dieldrin			
	Endosulfan I			
	Endosulfan II			
	Endosulfan Sulfate			
	Endrin			
	Endrin Ketone			
	Endrin Aldehyde			
	Heptachlor			
	Heptachlor Epoxide			
	Methoxychlor			
Product No.	Description in Benzene	Concentration	US EPA Methods	Packed in Ampoule
REPET008 (16 Compound Mix Pesticides)	Aldrin	100µg/ml	608	1ml
	Lindane (HCH-gamma)	100µg/ml	625	
	HCH-alpha	100µg/ml		
	HCH-beta	100µg/ml		
	HCH-delta	100µg/ml		
	4,4'-DDD	600µg/ml		
	4,4'-DDE	200µg/ml		
	4,4'-DDT	600µg/ml		
	Dieldrin	200µg/ml		
	Endosulfan I	200µg/ml		
	Endosulfan II	200µg/ml		
	Endosulfan Sulfate	600µg/ml		
	Endrin	200µg/ml		
	Endrin Aldehyde	600µg/ml		
	Heptachlor	100µg/ml		
	Heptachlor Epoxide	100µg/ml		

Product No.	Description	Concentration	US EPA Methods	Packed in Ampoule
REPET010 (18 Compound Mix Pesticides)	Aldrin	Each analyte at 1,000µg/ml in	617	1ml
	Lindane (HCH-gamma)	high-purity Toluene:Hexane 1:1		
	HCH-alpha			
	HCH-beta			
	HCH-delta			
	4,4'-DDD			
	4,4'-DDE			
	4,4'-DDT			
	Dieldrin			
	Endosulfan I			
	Endosulfan II			
	Endosulfan Sulfate			
	Endrin			
	Endrin Ketone			
	Endrin Aldehyde			
	Heptachlor			
	Heptachlor Epoxide			
	Methoxychlor			
REPET011 (3 Compound Mix Pesticides)	Isopropalin	Each analyte at 1,000µg/ml	627	1ml
	Profuralin	in high - purity Hexane		
	Trifluralin			
REPET013 (2 Compound Mix Pesticides)	Napropamid	Each analyte at 1,000µg/ml	632.1	1ml
	Propanil	in 9:1 Acetonitrile: Acetone		
REPET014 (7 Compound Mix Pesticides)	Bromacil	Each analyte at 1,000µg/ml	633	1ml
	DEET	in high - purity Acetone		
	Hexazinone			
	Metribuzin			
	Terbacil			
	Triadimefon			
	Tricyclazone			
REPET015 (5 Compound Mix Pesticides)	Fenarimol	Each analyte at 1,000µg/ml	633.1	1ml
	MGK 624-A	in high - purity Methanol		
	MGK 624-B			
	MGK 326			
	Pronamide			
REPET016 (6 Compound Mix Pesticides)	Butylate	Each analyte at 1,000µg/ml	634	1ml
	Cycloate	in high - purity Methanol		
	EPTC			
	Molinate			
	Pebulate			
	Vernolate			
REPET017 (6 Compound Mix Pesticides)	Alachlor	Each analyte at 1,000µg/ml 9:1	635	1ml
	Butachlor	in Acetonitrile: Acetone		
	Diphenamid			
	Fluridon			
	Lethane			
	Norflurazone			

Aroclor High & Low Concentration Standards

Product No.	Description	Concentration	US EPA Methods	Packed in Ampoule
REA1016-H	Aroclor 1016	1,000ug/ml in high-purity Hexane	625, 8270C	1ml
REA1016	Aroclor 1016	200ug/ml in high-purity Hexane	625, 8270C	1ml
REA1221	Aroclor 1221	200ug/ml in high-purity Hexane	625, 8270C	1ml
REA1221-H	Aroclor 1221	1,000ug/ml in high-purity Hexane	625, 8270C	1ml
REA1232	Aroclor 1232	200ug/ml in high-purity Hexane	625, 8270C	1ml
REA1232-H	Aroclor 1232	1,000ug/ml in high-purity Hexane	625, 8270C	1ml
REA1242	Aroclor 1242	200ug/ml in high-purity Hexane	625, 8270C	1ml
REA1242-H	Aroclor 1242	1,000ug/ml in high-purity Hexane	625, 8270C	1ml
REA1248	Aroclor 1248	200ug/ml in high-purity Hexane	625, 8270C	1ml
REA1248-H	Aroclor 1248	1,000ug/ml in high-purity Hexane	625, 8270C	1ml
REA1254	Aroclor 1254	200ug/ml in high-purity Hexane	625, 8270C	1ml
REA1254-H	Aroclor 1254	1,000ug/ml in high-purity Hexane	625, 8270C	1ml
REA1260	Aroclor 1260	200ug/ml in high-purity Hexane	625, 8270C	1ml
REA1260-H	Aroclor 1260	1,000ug/ml in high-purity Hexane	625, 8270C	1ml
REA1262	Aroclor 1262	200ug/ml in high-purity Hexane	625, 8270C	1ml
REA1262-H	Aroclor 1262	1,000ug/ml in high-purity Hexane	625, 8270C	1ml
REA1268	Aroclor 1268	200ug/ml in high-purity Hexane	625, 8270C	1ml
REA1268-H	Aroclor 1268	1,000ug/ml in high-purity Hexane	625, 8270C	1ml

Toxaphene/Chlordane High & Low Concentration Standards

Product No.	Description	Concentration	US EPA Methods	Packed in Ampoule
RECLC001	Technical Chlordane	200ug/ml in high-purity Hexane	625 8270C	1ml
RECLC001-H	Technical Chlordane	1,000ug/ml in high-purity Hexane	625 8270C	1ml
RETOX001	Toxaphene	200ug/ml in high-purity Hexane	625 8270C	1ml
RETOX001-H	Toxaphene	1,000ug/ml in high-purity Hexane	625 8270C	1ml

Pesticides Single Component Standards

Product No.	Description	Concentration µg/ml	Packed in Ampoule
REPET101	4,4'-DDD	1000µg/ml in Purge & Trap Methanol	1ml
REPET102	4,4'-DDE	1000µg/ml in Purge & Trap Methanol	1ml
REPET103	4,4'-DDT	1000µg/ml in Purge & Trap Methanol	1ml
REPET104	Alachlor	1000µg/ml in Purge & Trap Methanol	1ml
REPET105	Aldrin	1000µg/ml in Purge & Trap Methanol	1ml
REPET106	alpha-Chlorodane	1000µg/ml in Purge & Trap Methanol	1ml
REPET107	Ametryn	1000µg/ml in Purge & Trap Methanol	1ml
REPET108	Atraton	1000µg/ml in Purge & Trap Methanol	1ml
REPET109	Atrazine	1000µg/ml in Acetone	1ml
REPET110	Bromacil	1000µg/ml in Purge & Trap Methanol	1ml
REPET111	Butachlor	1000µg/ml in Purge & Trap Methanol	1ml
REPET112	Carboxin	1000µg/ml in Acetone	1ml
REPET113	Chlordane	1000µg/ml in Hexane	1ml
REPET114	Chlorobenzilate	1000µg/ml in Purge & Trap Methanol	1ml
REPET115	Chloroneb	1000µg/ml in Purge & Trap Methanol	1ml
REPET116	Chlorothalonil	1000µg/ml in Purge & Trap Methanol	1ml
REPET117	Chlorpropham	1000µg/ml in Purge & Trap Methanol	1ml
REPET118	cis-Nonachlor	1000µg/ml in Purge & Trap Methanol	1ml
REPET119	cis-Permethrin	1000µg/ml in Purge & Trap Methanol	1ml
REPET012	Cyanazine	1000µg/ml in Purge & Trap Methanol	1ml
REPET121	DCPA (Propanil)	1000µg/ml in Purge & Trap Methanol	1ml
REPET122	Diazinon	1000µg/ml in Acetone	1ml
REPET123	Dichlorvos	1000µg/ml in Purge & Trap Methanol	1ml
REPET124	Dieldrin	1000µg/ml in Purge & Trap Methanol	1ml
REPET125	Diphenamid	1000µg/ml in Acetone	1ml
REPET126	Disulfoton Sulfone	1000µg/ml in Acetone	1ml
REPET127	Disulfoton Sulfoxide	1000µg/ml in Acetone	1ml
REPET128	Disulfoton	1000µg/ml in Acetone	1ml
REPET129	Endosulfan I	1000µg/ml in Purge & Trap Methanol	1ml
REPET130	Endosulfan II	1000µg/ml in Purge & Trap Methanol	1ml
REPET131	Endosulfan Sulfate	1000µg/ml in Purge & Trap Methanol	1ml
REPET132	Endrin	1000µg/ml in Purge & Trap Methanol	1ml
REPET133	Endrin Aldehyde	1000µg/ml in Purge & Trap Methanol	1ml
REPET134	EPTC	1000µg/ml in Purge & Trap Methanol	1ml
REPET135	Ethoprop	1000µg/ml in Purge & Trap Methanol	1ml
REPET136	Etridiazole	1000µg/ml in Purge & Trap Methanol	1ml
REPET137	Fenamiphos	1000µg/ml in Acetone	1ml
REPET138	Fenarimol	1000µg/ml in Purge & Trap Methanol	1ml
REPET139	gamma-Chlorodane	1000µg/ml in Purge & Trap Methanol	1ml
REPET140	HCH-alpha	1000µg/ml in Purge & Trap Methanol	1ml
REPET141	HCH-beta	1000µg/ml in Purge & Trap Methanol	1ml
REPET142	HCH-delta	1000µg/ml in Purge & Trap Methanol	1ml
REPET143	Heptachlor	1000µg/ml in Purge & Trap Methanol	1ml
REPET144	Heptachlor Epoxide	1000µg/ml in Purge & Trap Methanol	1ml
REPET145	Hexachlorobenzene	1000µg/ml in Benzene	1ml
REPET146	Hexachlorocyclopentadiene	1000µg/ml in Purge & Trap Methanol	1ml
REPET147	Hexazinone	1000µg/ml in Purge & Trap Methanol	1ml
REPET148	Lindane (HCH-gamma)	1000µg/ml in Purge & Trap Methanol	1ml
REPET149	Methoxychlor	1000µg/ml in Purge & Trap Methanol	1ml
REPET150	Methyl Paraoxon	1000µg/ml in Purge & Trap Methanol	1ml
REPET151	Metolachlor	1000µg/ml in Purge & Trap Methanol	1ml
REPET152	Metribuzin	1000µg/ml in Purge & Trap Methanol	1ml
REPET153	Mevinphos	1000µg/ml in Purge & Trap Methanol	1ml
REPET154	Molinate	1000µg/ml in Purge & Trap Methanol	1ml

Product No.	Description	Concentration µg/ml	Packed in Ampoule
REPET155	Napropamide	1000µg/ml in Purge & Trap Methanol	1ml
REPET156	Norflurazon	1000µg/ml in Acetone	1ml
REPET157	Pebulate	1000µg/ml in Purge & Trap Methanol	1ml
REPET158	Prometon	1000µg/ml in Acetone	1ml
REPET159	Prometryn	1000µg/ml in Purge & Trap Methanol	1ml
REPET160	Pronamide (Propyzamide)	1000µg/ml in Purge & Trap Methanol	1ml
REPET161	Propachlor	1000µg/ml in Acetone	1ml
REPET162	Propazine	1000µg/ml in Purge & Trap Methanol	1ml
REPET163	Simazine	1000µg/ml in Acetone	1ml
REPET164	Simetryn	1000µg/ml in Purge & Trap Methanol	1ml
REPET165	Stirofos (Tetrachlorovinphos)	1000µg/ml in Acetone	1ml
REPET166	Tebuthiuron	1000µg/ml in Acetone	1ml
REPET167	Terbacil	1000µg/ml in Purge & Trap Methanol	1ml
REPET168	Terbufos	1000µg/ml in Purge & Trap Methanol	1ml
REPET169	Terbutryn	1000µg/ml in Purge & Trap Methanol	1ml
REPET170	Toxaphene (Camphechlor)	1000µg/ml in Purge & Trap Methanol	1ml
REPET171	trans-Nonachlor	1000µg/ml in Purge & Trap Methanol	1ml
REPET172	trans-Permethrin	1000µg/ml in Purge & Trap Methanol	1ml
REPET173	Triademefon	1000µg/ml in Purge & Trap Methanol	1ml
REPET174	Tricyclazole	1000µg/ml in Purge & Trap Methanol	1ml
REPET175	Trifluralin	1000µg/ml in Purge & Trap Methanol	1ml
REPET176	Azinphos-ethyl	1000µg/ml in Acetone	1ml
REPET177	Azinphos-methyl	1000µg/ml in Acetone	1ml
REPET178	Bromophos Methyl	1000µg/ml in Purge & Trap Methanol	1ml
REPET179	Carbophenothion	1000µg/ml in Purge & Trap Methanol	1ml
REPET180	Chlorpyrifos	1000µg/ml in Purge & Trap Methanol	1ml
REPET181	Chlorpyrifos-methyl	1000µg/ml in Purge & Trap Methanol	1ml
REPET182	Dimethoate	1000µg/ml in Purge & Trap Methanol	1ml
REPET183	Ethion	1000µg/ml in Purge & Trap Methanol	1ml
REPET184	Fonophos	1000µg/ml in Purge & Trap Methanol	1ml
REPET185	Malathion	1000µg/ml in Purge & Trap Methanol	1ml
REPET186	Methidathion	1000µg/ml in Purge & Trap Methanol	1ml
REPET187	Parathion	1000µg/ml in Purge & Trap Methanol	1ml
REPET188	Parathion-ethyl	1000µg/ml in Purge & Trap Methanol	1ml
REPET189	Pirimiphos-ethyl	1000µg/ml in Purge & Trap Methanol	1ml
REPET190	Pirimiphos-methyl	1000µg/ml in Purge & Trap Methanol	1ml
REPET191	2,2-DDE	1000µg/ml in Purge & Trap Methanol	1ml
REPET192	2,4-DDE	1000µg/ml in Purge & Trap Methanol	1ml
REPET193	2,4-DDT	1000µg/ml in Purge & Trap Methanol	1ml
REPET194	2,4-DDD	1000µg/ml in Purge & Trap Methanol	1ml
REPET195	PCB 28 2,44-Trichlorobiphenyl	100µg/ml in Purge & Trap Methanol	1ml
REPET196	PCB 52 2,2,5,5,-Tetrachlorobiphenyl	100µg/ml in Purge & Trap Methanol	1ml
REPET197	PCB101 2,24,5,5-Pentachlorobiphenyl	100µg/ml in Purge & Trap Methanol	1ml
REPET198	PCB 138 2,2,3,4,4,5-Hexachlorobiphenyl	100µg/ml in Purge & Trap Methanol	1ml
REPET199	PCB 153 2,2,4,4,5,5-Hexachlorobiphenyl	100µg/ml in Purge & Trap Methanol	1ml
REPET200	PCB 180 2,2,3,4,4,5,5-Heptachlorobiphenyl	100µg/ml in Purge & Trap Methanol	1ml
REPET201	PCB 198 2,2,3,3,4,4,5,5-Octachlorobiphenyl	100µg/ml in Purge & Trap Methanol	1ml
REPET202	PCB 209 2,2,3,3,4,4,5,5,6,6-Decachlorobiphenyl	100µg/ml in Purge & Trap Methanol	1ml

Colour Standards



Summary of Features & Benefits:

Commercial Benefits

- For use as calibration and/or quality control standards
- Presented in high quality tamper evident bottles
- Customised standards available
- Various pack sizes available
- Ready to Use

Technical Benefits

- Produced in accordance with ASTM (D1500, D6045, D1209) APHA, ACS, EP & USP methods
- Consistency of product - Independent, Traceable, Certified
- Certificates of Analysis and Safety Data Sheets available online

Reagecon manufactures the full range of ASTM, Saybolt, Platinum-Cobalt, Gardner, European Pharmacopeia and United States Pharmacopeia Colour Standards for use with ASTM, APHA, ACS, European and United States Pharmacopeia standard methods. The ASTM standard methods include D1500, D6045 and D1209. The products can be used to calibrate, control, qualify and validate colour measurement instruments.

The products range from:

These products are prepared gravimetrically on a weight/weight basis. Both solute and solvent are weighed on a balance calibrated by Reagecon engineers using OIML traceable weights. Reagecon holds ISO 17025 accreditation for calibration of laboratory balances (INAB ref: 265C). The resulting Balance Certificate of Calibration is issued in accordance with the requirements of ISO/IEC 17025. The concentration of each standard is verified using a high performance top of the range calibrated spectrophotometer. The calibration of the spectrophotometer is controlled using high purity ISO Guide 34 accredited spectrophotometric standards.



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

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

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

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

** Standards with intermediate Gardner values are available on request

Reagents as Outlined in Chapter 2 of European Pharmacopeia

Product No.	Description	Pack Size
EPP0S01	Primary Opalescent Standard	100ml

Colouration - Primary Solutions

Product No.	Description	Pack Size
EPBS01	EPBS01 Primary Blue Solution 100ml	100ml
EPRS01	EPRS01 Primary Red Solution 100ml	100ml
EPYS01	EPYS01 Primary Yellow Solution 100ml	100ml

Standard Solutions

Product No.	Description	Pack Size
EP703	Standard Solution B (Brown)	100ml
EP704	Standard Solution BY (Brown/Yellow)	100ml
EP705	Standard Solution GY (Green/Yellow)	100ml
EP706	Standard Solution Y (Yellow)	100ml
EP707	Standard Solution R (Red)	100ml

USP (631) Colour Standards

Product No.	Description	Pack Size
USPCS101	Cupric Sulfate CS	100ml
USPCS102	Ferric Chloride CS	100ml
USPCS103	Cobaltous Chloride CS	100ml

Spectrophotometry Standards



Summary of Features & Benefits:

Commercial Benefits

- Can be used with all UV-VIS Spectrophotometers
- Permanently sealed cuvettes available
- No Waste
- Ready to Use
- Standards also available in 100ml amber bottles - economy of scale

Technical Benefits

- National Institute of Standards and Technology (NIST) Traceable
- Produced with salts sourced directly from NIST where applicable
- All standards certified at multiple slit widths
- Certified measurement uncertainties
- Consistency of product - Independent, Traceable, Certified
- Certificates of Analysis and Safety Data Sheets available online

The product range includes:

- Linearity Standards
- Wavelength Standards
- Stray Light Standards
- Bandwidth Standards

These products are prepared gravimetrically on a weight/weight basis. Both solute and solvent are weighed on a balance calibrated by Reagecon engineers using OIML traceable weights. Reagecon holds ISO 17025 accreditation for calibration of laboratory balances (INAB ref: 265C). The resulting Balance Certificate of Calibration is issued in accordance with the requirements of ISO/IEC 17025. The certified values of each standard are verified using a high performance spectrophotometer calibrated with NIST traceable, ISO Guide 34 Certified Standards.



Linearity Standards @ 235, 257, 313 & 350nm

Product No.	Description	Concentration	Pack Size
RSPEC1022	Potassium Dichromate Linearity Set With Blank in Sealed Cuvettes	0mg/l, 20mg/l, 40mg/l, 60mg/l, 80mg/l, 100mg/l	6 x Permanently sealed UV Cuvettes
RSPEC0022	Potassium Dichromate Absorbance/Transmission Standard	20mg/l	2 x Permanently Sealed UV Cuvettes (including blank)
RSPEC0023	Potassium Dichromate Absorbance/Transmission Standard	40mg/l	2 x Permanently Sealed UV Cuvettes (including blank)
RSPEC0024	Potassium Dichromate Absorbance/Transmission Standard	60mg/l	2 x Permanently Sealed UV Cuvettes (including blank)
RSPEC0025	Potassium Dichromate Absorbance/Transmission Standard	80mg/l	2 x Permanently Sealed UV Cuvettes (including blank)
RSPEC0026	Potassium Dichromate Absorbance/Transmission Standard	100mg/l	2 x Permanently Sealed UV Cuvettes (including blank)
RSPEC00511	Blank - 0.001M Perchloric Acid	0mg/l	100ml Amber Bottle
RSPEC00221	Potassium Dichromate Absorbance/Transmission Standard	20mg/l	100ml Amber Bottle
RSPEC00231	Potassium Dichromate Absorbance/Transmission Standard	40mg/l	100ml Amber Bottle
RSPEC00241	Potassium Dichromate Absorbance/Transmission Standard	60mg/l	100ml Amber Bottle
RSPEC00251	Potassium Dichromate Absorbance/Transmission Standard	80mg/l	100ml Amber Bottle
RSPEC00261	Potassium Dichromate Absorbance/Transmission Standard	100mg/l	100ml Amber Bottle

Linearity Standards @ 213 & 261nm

Product No.	Description	Concentration	Pack Size
RSPEC1027	Nicotinic Acid Linearity Set With Blank in Sealed Cuvettes	0mg/l, 6mg/l, 12mg/l, 18mg/l, 24mg/l	5 x Permanently sealed UV Cuvettes (including blank)
RSPEC0027	Nicotinic Acid Absorbance/Transmission Standard	6mg/l	2 x Permanently Sealed UV Cuvettes (including blank)
RSPEC0028	Nicotinic Acid Absorbance/Transmission Standard	12mg/l	2x Permanently Sealed UV Cuvettes (including blank)
RSPEC0029	Nicotinic Acid Absorbance/Transmission Standard	18mg/l	2 x Permanently Sealed UV Cuvettes (including blank)
RSPEC0030	Nicotinic Acid Absorbance/Transmission Standard	24mg/l	2 x Permanently Sealed UV Cuvette (including blank)
RSPEC00521	Blank -- 0.1M Hydrochloric Acid	0mg/l	100ml Amber Bottle
RSPEC00271	Nicotinic Acid Absorbance/Transmission Standard	6mg/l	100ml Amber Bottle
RSPEC00281	Nicotinic Acid Absorbance/Transmission Standard	12mg/l	100ml Amber Bottle
RSPEC00291	Nicotinic Acid Absorbance/Transmission Standard	18mg/l	100ml Amber Bottle
RSPEC00301	Nicotinic Acid Absorbance/Transmission Standard	24mg/l	100ml Amber Bottle

Wavelength Standards (certified at 0.1nm, 0.2nm, 0.5nm, 1.0nm & 2.0nm slit widths)

Product No.	Description	Nominal Peak Wavelengths (0.2nm Slit Width)	Pack Size
RSPEC0001	Didymium Solution UV and Visible Wavelength Standard 298nm to 865nm	298nm, 328.8nm, 353.8nm, 443.8nm, 468.5nm, 481.3nm, 511.5nm, 521.6nm, 574.8nm, 731.4nm, 739.6nm, 794nm, 801.1nm, 865nm	1 x Permanently Sealed UV Cuvette
RSPEC0008	Samarium Solution UV and Visible Wavelength Standard 235nm to 480nm	235nm, 278.8nm, 290.1nm, 305.2nm, 317.4nm, 331.6nm, 344.4nm, 362.2nm, 374.1nm, 390.4nm, 401.1nm, 415.3nm, 463.4nm, 478.6nm	1 x Permanently Sealed UV Cuvette
RSPEC0015	Holmium Oxide Solution UV and Visible Wavelength Standard 240nm to 640nm	240.8nm, 249.6nm, 278nm, 286.8nm, 333nm, 345.4nm, 361.1nm, 385.2nm, 416nm, 451.8nm, 467.6nm, 485nm, 536.3nm, 640.2nm	1 x Permanently Sealed UV Cuvette
RSPEC00011	Didymium Solution UV and Visible Wavelength Standard 298nm to 865nm	298nm, 328.8nm, 353.8nm, 443.8nm, 468.5nm, 481.3nm, 511.5nm, 521.6nm, 574.8nm, 731.4nm, 739.6nm, 794nm, 801.1nm, 865nm	100ml Amber Bottle
RSPEC00081	Samarium Solution UV and Visible Wavelength Standard 235nm to 480nm	235nm, 278.8nm, 290.1nm, 305.2nm, 317.4nm, 331.6nm, 344.4nm, 362.2nm, 374.1nm, 390.4nm, 401.1nm, 415.3nm, 463.4nm, 478.6nm	100ml Amber Bottle
RSPEC00151	Holmium Oxide Solution UV and Visible Wavelength Standard 240nm to 640nm	240.8nm, 249.6nm, 278nm, 286.8nm, 333nm, 345.4nm, 361.1nm, 385.2nm, 416nm, 451.8nm, 467.6nm, 485nm, 536.3nm, 640.2nm	100ml Amber Bottle

Stray Light Standards

Product No.	Description	Cut Off	Packed in
RSPEC0036	Stray Light Inorganic Cut-off filter - Sodium Nitrite	390nm	2 x Permanently sealed UV Cuvettes (including blank)
RSPEC0037	Stray Light Inorganic Cut-off filter - Potassium Iodide	260nm	2 x Permanently Sealed UV Cuvettes (including blank)
RSPEC0038	Stray Light Inorganic Cut-off filter - Sodium Iodide	260nm	2 x Permanently Sealed UV Cuvettes (including blank)
RSPEC0039	Stray Light Inorganic Cut-off filter - Lithium Carbonate	227nm	2 x Permanently Sealed UV Cuvettes (including blank)
RSPEC0040	Stray Light Inorganic Cut-off filter - Sodium Chloride	205nm	2 x Permanently Sealed UV Cuvettes (including blank)
RSPEC0041	Stray Light Inorganic Cut-off filter - Potassium chloride	200nm	2 x Permanently Sealed UV Cuvettes (including blank)
RSPEC00541	Stray Light Blank - Aqueous		100ml Amber Bottle
RSPEC00361	Stray Light Inorganic Cut-off filter - Sodium Nitrite	390nm	100ml Amber Bottle
RSPEC00371	Stray Light Inorganic Cut-off filter - Potassium Iodide	260nm	100ml Amber Bottle
RSPEC00381	Stray Light Inorganic Cut-off filter - Sodium Iodide	260nm	100ml Amber Bottle
RSPEC00391	Stray Light Inorganic Cut-off filter - Lithium Carbonate	227nm	100ml Amber Bottle
RSPEC00401	Stray Light Inorganic Cut-off filter - Sodium Chloride	205nm	100ml Amber Bottle
RSPEC00411	Stray Light Inorganic Cut-off filter - Potassium chloride	200nm	100ml Amber Bottle

Bandwidth Standard

Product No.	Description	Certified Value	Packed in
RSPEC1031	Toluene in Hexane Bandwidth Standard	Ratio of 268.7nm peak to 266.8nm trough	2 x Permanently sealed UV Cuvettes (including blank)
RSPEC00311	Bandwidth Standard - Toluene in Hexane	Ratio of 268.7nm peak to 266.8nm trough	100ml Amber Bottle
RSPEC00531	Bandwidth Standard - Blank	Ratio of 268.7nm peak to 266.8nm trough	100ml Amber Bottle

Sample Certificate for a Wavelength Standard



Reagecon
Certificate of Analysis

PRODUCT: Holmium Oxide Solution UV and Visible Wavelength Standard 240nm to 640nm
PRODUCT NO: RSPEC00151
LOT NO: RSPEC1513D1
DATE OF TEST: 05th April 2013
EXPIRY DATE: 28th April 2015

SBW

	Peak Wavelength (nm)											
0.10	240.73	250.88	277.93	345.58	360.98	385.23	415.88	451.83	467.63	484.98	535.33	640.28
0.20	240.81	249.62	278.06	345.66	361.26	385.36	416.01	452.01	467.81	485.21	536.51	640.36
0.50	240.92	249.72	278.17	345.42	361.17	385.52	416.07	451.92	467.72	485.17	536.52	640.52
1.00	241.06	249.81	278.16	345.51	361.26	385.71	416.31	451.46	467.81	485.26	536.66	640.56
2.00	241.11	250.05	278.16	345.56	360.16	385.96	416.71	451.31	467.91	485.31	536.96	640.81

TEST METHOD:

The result reported above was determined by analysis of a sample of this lot taken at time of manufacture. The wavelength values of the standard was determined using a high performance calibrated, UV Spectrometer according to TPUVWAV1. This test method provides traceability to high purity ISO Guide 34 Certified Reference Materials and to National Institute of Standards and Technology (NIST)

This certificate relates solely to the lot number given above. The uncertainty of measurement has been calculated not to exceed $\pm 0.502\text{nm}$ at 95% confidence level, i.e. coverage factor $k=2$.

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TRACEABILITY IN THE PRODUCTION OF THIS STANDARD:

This product was prepared gravimetrically on a weight/weight basis. Both solute and solvent were weighed on a balance calibrated by Reagecon engineers using OIML traceable weights. Reagecon holds ISO 17025 accreditation for calibration of non-automatic weighing machines (265C). The resulting Balance Certificate of Calibration was issued in accordance with the requirements of ISO/IEC 17025. The balance was calibrated under monitored environmental conditions and atmospheric pressure. Tests were performed for capacity, readability, repeatability, eccentricity and linearity.

BALANCE ID No.: RRD006
CALIBRATION DATE OF BALANCE: 28th September 2012
CALIBRATION AUTHORITY OF BALANCE: Reagecon Diagnostics Ltd, ISO17025 Accreditation No. 265C

WEIGHTS No.: RTS12
CALIBRATION DATE OF WEIGHTS: 19th May 2012
CALIBRATION AUTHORITY OF WEIGHTS: Complete Calibrations, ISO17025 Accreditation No. 282C

WEIGHTS No.: RTS13
CALIBRATION DATE OF WEIGHTS: 21st October 2011
CALIBRATION AUTHORITY OF WEIGHTS: European Instruments (UKAS No. 0438)

INSTRUCTIONS FOR USE:

- Run against an Air Blank
- Shake well before use

Date: 05th April 2013

This certificate must not be reproduced except in full.

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Melting Point Standards

Summary of Features & Benefits:

Commercial Benefits

- Extensive range
- Can be used with any melting point apparatus
- Presented in high quality glass bottles
- Customised Melting Point Standards also available
- Ready to Use

Technical Benefits

- Uncertainty of measurement up to $\pm 0.3^{\circ}\text{C}$
- Consistency of product - Independent, Traceable, Certified
- Certificates of Analysis and Safety Data Sheets available online

The product range includes Benzophenone, Melting Point $+47$ to $+49^{\circ}\text{C}$ To Anthraquinone, Melting Point $+283$ to $+286^{\circ}\text{C}$. These products are prepared using the highest purity raw materials. Melting points are determined using a high accuracy Differential Scanning Calorimeter (DSC) system that is calibrated to the ITS - 90 International Temperature Scale. Verification measurements are completed using a high specification melting point apparatus.

Melting Point Standards

Product No.	Description	Certified Value	Packed in
RMPSET1	Melting Point Standard Set,		
	Sulphanilamide	$+164$ to $+166^{\circ}\text{C}$	3 x 1g
	Caffeine	$+235$ to $+237^{\circ}\text{C}$	
	Vanillin	$+81$ to $+83^{\circ}\text{C}$	
RMP236	Caffeine	$+235$ to $+237^{\circ}\text{C}$	1 x 1g
RMP165	Sulphanilamide	$+164$ to $+166^{\circ}\text{C}$	1 x 1g
RMP082	Vanillin	$+81$ to $+83^{\circ}\text{C}$	1 x 1g
RMPSET3	Melting Point Standard Set,		
	Phenacetin	$+133$ to $+135^{\circ}\text{C}$	3 x 1g
	Caffeine	$+235$ to $+237^{\circ}\text{C}$	
	Vanillin	$+81$ to $+83^{\circ}\text{C}$	
RMP132	Phenacetin	$+133$ to $+135^{\circ}\text{C}$	1 x 1g
RMPSET2	Melting Point Standard Set		3 x 1g
	Benzophenone	$+47$ to $+49^{\circ}\text{C}$	
	Benzoic Acid	$+121$ to $+123^{\circ}\text{C}$	
	Anthraquinone	$+283$ to $+286^{\circ}\text{C}$	
RMP048	Benzophenone	$+47$ to $+49^{\circ}\text{C}$	1 x 1g
RMP122	Benzoic Acid	$+121$ to $+123^{\circ}\text{C}$	1 x 1g
RMP284	Anthraquinone	$+283$ to $+286^{\circ}\text{C}$	1 x 1g
RMP053	p - Nitrotoluene	$+52$ to $+54^{\circ}\text{C}$	1 x 1g
RMP246	Carbazole	$+244$ to $+248^{\circ}\text{C}$	1 x 1g
RMP159	Salicylic Acid	$+158$ to $+160^{\circ}\text{C}$	1 x 1g

Density Standards - Premium Range

Summary of Features & Benefits:

Commercial Benefits

- Extensive range (0.6407 - 3.1096 g/ml)
- No toxic heavy metals used in any formulation
- Can be used with any brand or type of density measuring instrument
- Presented in a high quality tamper proof Amber glass bottle
- Customised formulations available

Technical Benefits

- High accuracy products
- Tested using a fundamental measurement technique (Bingham Pycnometer)
- All products tested in accordance with ASTM D1480-12 Guidelines
- Consistency of product - Independent, Traceable, Certified
- Certificates of Analysis and Safety Data Sheets available online

Reagecon manufactures an extensive range of Density Standards in accordance with ASTM D1480-12 for testing of Density or Relative Density (specific gravity) by Bingham Pycnometer. These materials can be used as calibration standards for density measurement by pycnometric techniques, vibrational techniques or hydrometer based techniques.

The product range includes:

0.6960 - 3.1140g/ml @ 15°C
0.6619 - 3.1096g/ml @ 20°C
0.6878 - 3.1043g/ml @ 25°C
0.6752 - 3.0852g/ml @ 40°C
0.6668 - 3.0721g/ml @ 50°C
0.6582 - 1.0478g/ml @ 60°C
0.6407 - 1.0302g/ml @ 80°C

The products are prepared gravimetrically on a weight/weight basis. Both solute and solvent are weighed on a balance calibrated by Reagecon engineers using OIML traceable weights. Reagecon holds ISO 17025 accreditation for calibration of laboratory balances (INAB ref: 265C). The resulting Balance Certificate of Calibration is issued in accordance with the requirements of ISO/IEC 17025. The density of each standard is established using a high performance set of fully calibrated reference pycnometers.



Density Standards @ 15°C

Product No.	Description	Pack size
DEN15010PY	Density Standard 0.6960g/ml @15°C	100ml
DEN15020PY	Density Standard 0.7073g/ml @15°C	100ml
DEN15030 PY	Density Standard 0.7184g/ml @15°C	100ml
DEN15040PY	Density Standard 0.7298g/ml @15°C	100ml
DEN15050PY	Density Standard 0.7411g/ml @15°C	100ml
DEN15060PY	Density Standard 0.7524g/ml @15°C	100ml
DEN15070PY	Density Standard 0.7721g/ml @15°C	100ml
DEN15080PY	Density Standard 0.7933g/ml @15°C	100ml
DEN15090PY	Density Standard 0.8168g/ml @15°C	100ml
DEN15100PY	Density Standard 0.8428g/ml @15°C	100ml
DEN15110PY	Density Standard 0.8715g/ml @15°C	100ml
DEN15120PY	Density Standard 0.9135g/ml @15°C	100ml
DEN15130PY	Density Standard 0.9514g/ml @15°C	100ml
DEN15140PY	Density Standard 1.0040g/ml @15°C	100ml
DEN15150PY	Density Standard 1.0337g/ml @15°C	100ml
DEN15160PY	Density Standard 1.0828g/ml @15°C	100ml
DEN15170PY	Density Standard 1.1661g/ml @15°C	100ml
DEN15180PY	Density Standard 1.2498g/ml @15°C	100ml
DEN15190PY	Density Standard 1.3318g/ml @15°C	100ml
DEN15200PY	Density Standard 1.4152g/ml @15°C	100ml
DEN15210PY	Density Standard 1.5820g/ml @15°C	100ml
DEN15220PY	Density Standard 1.7495g/ml @15°C	100ml
DEN15230PY	Density Standard 1.9171g/ml @15°C	100ml
DEN15240PY	Density Standard 2.0846g/ml @15°C	100ml
DEN15250PY	Density Standard 2.2568g/ml @15°C	100ml
DEN15260PY	Density Standard 2.4261g/ml @15°C	100ml
DEN15270PY	Density Standard 2.6055g/ml @15°C	100ml
DEN15280PY	Density Standard 2.7588g/ml @15°C	100ml
DEN15290PY	Density Standard 2.9418g/ml @15°C	100ml
DEN15300PY	Density Standard 3.1140g/ml @15°C	100ml

Density Standards @ 20°C

Product No.	Description	Pack size
DEN20010PY	Density Standard 0.6919g/ml @20°C	100ml
DEN20020PY	Density Standard 0.7033g/ml @20°C	100ml
DEN20030PY	Density Standard 0.7148g/ml @20°C	100ml
DEN20040PY	Density Standard 0.7261g/ml @20°C	100ml
DEN20050PY	Density Standard 0.7374g/ml @20°C	100ml
DEN20060PY	Density Standard 0.7488g/ml @20°C	100ml
DEN20070PY	Density Standard 0.7683g/ml @20°C	100ml
DEN20080PY	Density Standard 0.7893g/ml @20°C	100ml
DEN20090PY	Density Standard 0.8126g/ml @20°C	100ml
DEN20100PY	Density Standard 0.8384g/ml @20°C	100ml
DEN20110PY	Density Standard 0.8668g/ml @20°C	100ml
DEN20120PY	Density Standard 0.9098g/ml @20°C	100ml
DEN20130PY	Density Standard 0.9476g/ml @20°C	100ml
DEN20140PY	Density Standard 1.0005g/ml @20°C	100ml
DEN20150PY	Density Standard 1.0301g/ml @20°C	100ml
DEN20160PY	Density Standard 1.0792g/ml @20°C	100ml
DEN20170PY	Density Standard 1.1651g/ml @20°C	100ml
DEN20180PY	Density Standard 1.2486g/ml @20°C	100ml
DEN20190PY	Density Standard 1.3304g/ml @20°C	100ml
DEN20200PY	Density Standard 1.4136g/ml @20°C	100ml
DEN20210PY	Density Standard 1.5799g/ml @20°C	100ml
DEN20220PY	Density Standard 1.7470g/ml @20°C	100ml
DEN20230PY	Density Standard 1.9141g/ml @20°C	100ml
DEN20240PY	Density Standard 2.0812g/ml @20°C	100ml
DEN20250PY	Density Standard 2.2531g/ml @20°C	100ml
DEN20260PY	Density Standard 2.4219g/ml @20°C	100ml
DEN20270PY	Density Standard 2.6011g/ml @20°C	100ml
DEN20280PY	Density Standard 2.7542g/ml @20°C	100ml
DEN20290PY	Density Standard 2.9370g/ml @20°C	100ml
DEN20300PY	Density Standard 3.1096g/ml @20°C	100ml

Density Standards @ 25°C

Product No.	Description	Pack size
DEN25010PY	Density Standard 0.6878g/ml @25°C	100ml
DEN25020PY	Density Standard 0.6993g/ml @25°C	100ml
DEN25030PY	Density Standard 0.7111g/ml @25°C	100ml
DEN25040PY	Density Standard 0.7223g/ml @25°C	100ml
DEN25050PY	Density Standard 0.7337g/ml @25°C	100ml
DEN25060PY	Density Standard 0.7452g/ml @25°C	100ml
DEN25070PY	Density Standard 0.7645g/ml @25°C	100ml
DEN25080PY	Density Standard 0.7853g/ml @25°C	100ml
DEN25090PY	Density Standard 0.8084g/ml @25°C	100ml
DEN25100PY	Density Standard 0.8340g/ml @25°C	100ml
DEN25110PY	Density Standard 0.8622g/ml @25°C	100ml
DEN25120PY	Density Standard 0.9060g/ml @25°C	100ml
DEN25130PY	Density Standard 0.9438g/ml @25°C	100ml
DEN25140PY	Density Standard 0.9969g/ml @25°C	100ml
DEN25150PY	Density Standard 1.0265g/ml @25°C	100ml
DEN25160PY	Density Standard 1.0755g/ml @25°C	100ml
DEN25170PY	Density Standard 1.1639g/ml @25°C	100ml
DEN25180PY	Density Standard 1.2471g/ml @25°C	100ml
DEN25190PY	Density Standard 1.3287g/ml @25°C	100ml
DEN25200PY	Density Standard 1.4117g/ml @25°C	100ml
DEN25210PY	Density Standard 1.5775g/ml @25°C	100ml
DEN25220PY	Density Standard 1.7441g/ml @25°C	100ml
DEN25230PY	Density Standard 1.9108g/ml @25°C	100ml
DEN25240PY	Density Standard 2.0775g/ml @25°C	100ml
DEN25250PY	Density Standard 2.2490g/ml @25°C	100ml
DEN25260PY	Density Standard 2.4175g/ml @25°C	100ml
DEN25270PY	Density Standard 2.5964g/ml @25°C	100ml
DEN25280PY	Density Standard 2.7493g/ml @25°C	100ml
DEN25290PY	Density Standard 2.9319g/ml @25°C	100ml
DEN25300PY	Density Standard 3.1043g/ml @25°C	100ml

Density Standards @ 40°C

Product No.	Description	Pack size
DEN40010PY	Density Standard 0.6752g/ml @40°C	100ml
DEN40020PY	Density Standard 0.6872g/ml @40°C	100ml
DEN40030PY	Density Standard 0.6997g/ml @40°C	100ml
DEN40040PY	Density Standard 0.7109g/ml @40°C	100ml
DEN40050PY	Density Standard 0.7226g/ml @40°C	100ml
DEN40060PY	Density Standard 0.7343g/ml @40°C	100ml
DEN40070PY	Density Standard 0.7531g/ml @40°C	100ml
DEN40080PY	Density Standard 0.7733g/ml @40°C	100ml
DEN40090PY	Density Standard 0.7958g/ml @40°C	100ml
DEN40100PY	Density Standard 0.8207g/ml @40°C	100ml
DEN40110PY	Density Standard 0.8482g/ml @40°C	100ml
DEN40120PY	Density Standard 0.8945g/ml @40°C	100ml
DEN40130PY	Density Standard 0.9323g/ml @40°C	100ml
DEN40140PY	Density Standard 0.9857g/ml @40°C	100ml
DEN40150PY	Density Standard 1.0152g/ml @40°C	100ml
DEN40160PY	Density Standard 1.0642g/ml @40°C	100ml
DEN40170PY	Density Standard 1.1581g/ml @40°C	100ml
DEN40180PY	Density Standard 1.2408g/ml @40°C	100ml
DEN40190PY	Density Standard 1.3217g/ml @40°C	100ml
DEN40200PY	Density Standard 1.4039g/ml @40°C	100ml
DEN40210PY	Density Standard 1.5685g/ml @40°C	100ml
DEN40220PY	Density Standard 1.7339g/ml @40°C	100ml
DEN40230PY	Density Standard 1.8994g/ml @40°C	100ml
DEN40240PY	Density Standard 2.0649g/ml @40°C	100ml
DEN40250PY	Density Standard 2.2352g/ml @40°C	100ml
DEN40260PY	Density Standard 2.4028g/ml @40°C	100ml
DEN40270PY	Density Standard 2.5807g/ml @40°C	100ml
DEN40280PY	Density Standard 2.7329g/ml @40°C	100ml
DEN40290PY	Density Standard 2.9132g/ml @40°C	100ml
DEN40300PY	Density Standard 3.0852g/ml @40°C	100ml

Density Standards @ 50°C

Product No.	Description	Pack size
DEN50010PY	Density Standard 0.6668g/ml @50°C	100ml
DEN50020PY	Density Standard 0.6791g/ml @50°C	100ml
DEN50030PY	Density Standard 0.6917g/ml @50°C	100ml
DEN50040PY	Density Standard 0.7033g/ml @50°C	100ml
DEN50050PY	Density Standard 0.7151g/ml @50°C	100ml
DEN50060PY	Density Standard 0.7269g/ml @50°C	100ml
DEN50070PY	Density Standard 0.7454g/ml @50°C	100ml
DEN50080PY	Density Standard 0.7653g/ml @50°C	100ml
DEN50090PY	Density Standard 0.7873g/ml @50°C	100ml
DEN50100PY	Density Standard 0.8118g/ml @50°C	100ml
DEN50110PY	Density Standard 0.8387g/ml @50°C	100ml
DEN50120PY	Density Standard 0.8868g/ml @50°C	100ml
DEN50130PY	Density Standard 0.9245g/ml @50°C	100ml
DEN50140PY	Density Standard 0.9777g/ml @50°C	100ml
DEN50150PY	Density Standard 1.0073g/ml @50°C	100ml
DEN50160PY	Density Standard 1.0562g/ml @50°C	100ml
DEN50170PY	Density Standard 1.1512g/ml @50°C	100ml
DEN50180PY	Density Standard 1.2346g/ml @50°C	100ml
DEN50190PY	Density Standard 1.3138g/ml @50°C	100ml
DEN50200PY	Density Standard 1.3973g/ml @50°C	100ml
DEN50210PY	Density Standard 1.5609g/ml @50°C	100ml
DEN50220PY	Density Standard 1.7257g/ml @50°C	100ml
DEN50230PY	Density Standard 1.8904g/ml @50°C	100ml
DEN50240PY	Density Standard 2.0551g/ml @50°C	100ml
DEN50250PY	Density Standard 2.2247g/ml @50°C	100ml
DEN50260PY	Density Standard 2.3916g/ml @50°C	100ml
DEN50270PY	Density Standard 2.5689g/ml @50°C	100ml
DEN50280PY	Density Standard 2.7207g/ml @50°C	100ml
DEN50290PY	Density Standard 2.9005g/ml @50°C	100ml
DEN50300PY	Density Standard 3.0721g/ml @50°C	100ml

Density Standards @ 60°C

Product No.	Description	Pack size
DEN60010PY	Density Standard 0.6582g/ml @60°C	100ml
DEN60020PY	Density Standard 0.6708g/ml @60°C	100ml
DEN60030PY	Density Standard 0.6835g/ml @60°C	100ml
DEN60040PY	Density Standard 0.6955g/ml @60°C	100ml
DEN60050PY	Density Standard 0.7076g/ml @60°C	100ml
DEN60060PY	Density Standard 0.7196g/ml @60°C	100ml
DEN60070PY	Density Standard 0.7376g/ml @60°C	100ml
DEN60080PY	Density Standard 0.7572g/ml @60°C	100ml
DEN60090PY	Density Standard 0.7788g/ml @60°C	100ml
DEN60100PY	Density Standard 0.8027g/ml @60°C	100ml
DEN60110PY	Density Standard 0.8292g/ml @60°C	100ml
DEN60120PY	Density Standard 0.8790g/ml @60°C	100ml
DEN60130PY	Density Standard 0.9166g/ml @60°C	100ml
DEN60140PY	Density Standard 0.9695g/ml @60°C	100ml
DEN60150PY	Density Standard 0.9990g/ml @60°C	100ml
DEN60160PY	Density Standard 1.0478g/ml @60°C	100ml

Density Standards @ 80°C

Product No.	Description	Pack size
DEN80010PY	Density Standard 0.6407g/ml @80°C	100ml
DEN80020PY	Density Standard 0.6538g/ml @80°C	100ml
DEN80030PY	Density Standard 0.6661g/ml @80°C	100ml
DEN80040PY	Density Standard 0.6798g/ml @80°C	100ml
DEN80050PY	Density Standard 0.6923g/ml @80°C	100ml
DEN80060PY	Density Standard 0.7047g/ml @80°C	100ml
DEN80070PY	Density Standard 0.7220g/ml @80°C	100ml
DEN80080PY	Density Standard 0.7407g/ml @80°C	100ml
DEN80090PY	Density Standard 0.7614g/ml @80°C	100ml
DEN80100PY	Density Standard 0.7844g/ml @80°C	100ml
DEN80110PY	Density Standard 0.8098g/ml @80°C	100ml
DEN80120PY	Density Standard 0.8629g/ml @80°C	100ml
DEN80130PY	Density Standard 0.9006g/ml @80°C	100ml
DEN80140PY	Density Standard 0.9520g/ml @80°C	100ml
DEN80150PY	Density Standard 0.9815g/ml @80°C	100ml
DEN80160PY	Density Standard 1.0302g/ml @80°C	100ml

Density Standards - Quality Range

Summary of Features & Benefits:

Commercial Benefits

- Extensive range (0.6407 - 1.0337 g/ml)
- No toxic heavy metals used in any formulation
- Can be used with any brand or type of vibrational density measuring instrument
- Presented in a high quality tamper proof Amber glass bottle
- Customised formulations available

Technical Benefits

- Test results accredited to ISO17025. Uncertainty of measurement (assay procedure) $\pm 0.16\%$
- Produced in accordance with ASTM D4052 - 09 Guidelines
- Consistency of product - Independent, Traceable, Certified
- Certificates of Analysis and Safety Data Sheets available online

Reagecon manufactures an extensive range of Density Standards in accordance with ASTM D4052-09 for testing of Density, Relative Density and API Gravity of Liquids by Digital Density Meter. These materials can be used as calibration standards for density measurement by vibrational techniques or hydrometer based techniques.

The product range includes:

0.6960 - 1.0337g/ml @ 15°C
0.6619 - 1.0301g/ml @ 20°C
0.6878 - 1.0265g/ml @ 25°C
0.6752 - 1.0152g/ml @ 40°C
0.6668 - 1.0073g/ml @ 50°C
0.6582 - 0.9990g/ml @ 60°C
0.6407 - 1.0302g/ml @ 80°C



These products are prepared gravimetrically on a weight/weight basis. Both solute and solvent are weighed on a balance calibrated by Reagecon engineers using OIML traceable weights. Reagecon holds ISO 17025 accreditation for calibration of laboratory balances (INAB ref: 265C). The resulting Balance Certificate of Calibration is issued in accordance with the requirements of ISO/IEC 17025. The density of each standard is verified using a high performance calibrated density meter. The control of the density meter (identification no. - RRD015) is completed using high purity ISO Guide 34 accredited density standards similar in density value to these products.

Density Standards @ 15°C

Product No.	Description	Pack size
DEN15010	Density Standard 0.6960g/ml @15°C	100ml
DEN15020	Density Standard 0.7073g/ml @15°C	100ml
DEN15030	Density Standard 0.7184g/ml @15°C	100ml
DEN15040	Density Standard 0.7298g/ml @15°C	100ml
DEN15050	Density Standard 0.7411g/ml @15°C	100ml
DEN15060	Density Standard 0.7524g/ml @15°C	100ml
DEN15070	Density Standard 0.7721g/ml @15°C	100ml
DEN15080	Density Standard 0.7933g/ml @15°C	100ml
DEN15090	Density Standard 0.8168g/ml @15°C	100ml
DEN15100	Density Standard 0.8428g/ml @15°C	100ml
DEN15110	Density Standard 0.8715g/ml @15°C	100ml
DEN15120	Density Standard 0.9135g/ml @15°C	100ml
DEN15130	Density Standard 0.9514g/ml @15°C	100ml
DEN15140	Density Standard 1.0040g/ml @15°C	100ml
DEN15150	Density Standard 1.0337g/ml @15°C	100ml

Density Standards @ 20°C

Product No.	Description	Pack size
DEN20010	Density Standard 0.6919g/ml @20°C	100ml
DEN20020	Density Standard 0.7033g/ml @20°C	100ml
DEN20030	Density Standard 0.7148g/ml @20°C	100ml
DEN20040	Density Standard 0.7261g/ml @20°C	100ml
DEN20050	Density Standard 0.7374g/ml @20°C	100ml
DEN20060	Density Standard 0.7488g/ml @20°C	100ml
DEN20070	Density Standard 0.7683g/ml @20°C	100ml
DEN20080	Density Standard 0.7893g/ml @20°C	100ml
DEN20090	Density Standard 0.8126g/ml @20°C	100ml
DEN20100	Density Standard 0.8384g/ml @20°C	100ml
DEN20110	Density Standard 0.8668g/ml @20°C	100ml
DEN20120	Density Standard 0.9098g/ml @20°C	100ml
DEN20130	Density Standard 0.9476g/ml @20°C	100ml
DEN20140	Density Standard 1.0005g/ml @20°C	100ml
DEN20150	Density Standard 1.0301g/ml @20°C	100ml

Density Standards @ 25°C

Product No.	Description	Pack size
DEN25010	Density Standard 0.6878g/ml @25°C	100ml
DEN25020	Density Standard 0.6993g/ml @25°C	100ml
DEN25030	Density Standard 0.7111g/ml @25°C	100ml
DEN25040	Density Standard 0.7223g/ml @25°C	100ml
DEN25050	Density Standard 0.7337g/ml @25°C	100ml
DEN25060	Density Standard 0.7452g/ml @25°C	100ml
DEN25070	Density Standard 0.7645g/ml @25°C	100ml
DEN25080	Density Standard 0.7853g/ml @25°C	100ml
DEN25090	Density Standard 0.8084g/ml @25°C	100ml
DEN25100	Density Standard 0.8340g/ml @25°C	100ml
DEN25110	Density Standard 0.8622g/ml @25°C	100ml
DEN25120	Density Standard 0.9060g/ml @25°C	100ml
DEN25130	Density Standard 0.9438g/ml @25°C	100ml
DEN25140	Density Standard 0.9969g/ml @25°C	100ml
DEN25150	Density Standard 1.0265g/ml @25°C	100ml

Density Standards @ 40°C

Product No.	Description	Pack size
DEN40010	Density Standard 0.6752g/ml @40°C	100ml
DEN40020	Density Standard 0.6872g/ml @40°C	100ml
DEN40030	Density Standard 0.6997g/ml @40°C	100ml
DEN40040	Density Standard 0.7109g/ml @40°C	100ml
DEN40050	Density Standard 0.7226g/ml @40°C	100ml
DEN40060	Density Standard 0.7343g/ml @40°C	100ml
DEN40070	Density Standard 0.7531g/ml @40°C	100ml
DEN40080	Density Standard 0.7733g/ml @40°C	100ml
DEN40090	Density Standard 0.7958g/ml @40°C	100ml
DEN40100	Density Standard 0.8207g/ml @40°C	100ml
DEN40110	Density Standard 0.8482g/ml @40°C	100ml
DEN40120	Density Standard 0.8945g/ml @40°C	100ml
DEN40130	Density Standard 0.9323g/ml @40°C	100ml
DEN40140	Density Standard 0.9857g/ml @40°C	100ml
DEN40150	Density Standard 1.0152g/ml @40°C	100ml

Density Standards @ 50°C

Product No.	Description	Pack size
DEN50010	Density Standard 0.6668g/ml @50°C	100ml
DEN50020	Density Standard 0.6791g/ml @50°C	100ml
DEN50030	Density Standard 0.6917g/ml @50°C	100ml
DEN50040	Density Standard 0.7033g/ml @50°C	100ml
DEN50050	Density Standard 0.7151g/ml @50°C	100ml
DEN50060	Density Standard 0.7269g/ml @50°C	100ml
DEN50070	Density Standard 0.7454g/ml @50°C	100ml
DEN50080	Density Standard 0.7653g/ml @50°C	100ml
DEN50090	Density Standard 0.7873g/ml @50°C	100ml
DEN50100	Density Standard 0.8118g/ml @50°C	100ml
DEN50110	Density Standard 0.8387g/ml @50°C	100ml
DEN50120	Density Standard 0.8868g/ml @50°C	100ml
DEN50130	Density Standard 0.9245g/ml @50°C	100ml
DEN50140	Density Standard 0.9777g/ml @50°C	100ml
DEN50150	Density Standard 1.0073g/ml @50°C	100ml

Density Standards @ 60°C

Product No.	Description	Pack size
DEN60010	Density Standard 0.6582g/ml @60°C	100ml
DEN60020	Density Standard 0.6708g/ml @60°C	100ml
DEN60030	Density Standard 0.6835g/ml @60°C	100ml
DEN60040	Density Standard 0.6955g/ml @60°C	100ml
DEN60050	Density Standard 0.7076g/ml @60°C	100ml
DEN60060	Density Standard 0.7196g/ml @60°C	100ml
DEN60070	Density Standard 0.7376g/ml @60°C	100ml
DEN60080	Density Standard 0.7572g/ml @60°C	100ml
DEN60090	Density Standard 0.7788g/ml @60°C	100ml
DEN60100	Density Standard 0.8027g/ml @60°C	100ml
DEN60110	Density Standard 0.8292g/ml @60°C	100ml
DEN60120	Density Standard 0.8790g/ml @60°C	100ml
DEN60130	Density Standard 0.9166g/ml @60°C	100ml
DEN60140	Density Standard 0.9695g/ml @60°C	100ml
DEN60150	Density Standard 0.9990g/ml @60°C	100ml

Density Standards @ 80°C

Product No.	Description	Pack size
DEN80010	Density Standard 0.6407g/ml @80°C	100ml
DEN80020	Density Standard 0.6538g/ml @80°C	100ml
DEN80030	Density Standard 0.6661g/ml @80°C	100ml
DEN80040	Density Standard 0.6798g/ml @80°C	100ml
DEN80050	Density Standard 0.6923g/ml @80°C	100ml
DEN80060	Density Standard 0.7047g/ml @80°C	100ml
DEN80070	Density Standard 0.7220g/ml @80°C	100ml
DEN80080	Density Standard 0.7407g/ml @80°C	100ml
DEN80090	Density Standard 0.7614g/ml @80°C	100ml
DEN80100	Density Standard 0.7844g/ml @80°C	100ml
DEN80110	Density Standard 0.8098g/ml @80°C	100ml
DEN80120	Density Standard 0.8629g/ml @80°C	100ml
DEN80130	Density Standard 0.9006g/ml @80°C	100ml
DEN80140	Density Standard 0.9520g/ml @80°C	100ml
DEN80150	Density Standard 0.9815g/ml @80°C	100ml
DEN80160	Density Standard 1.0302g/ml @80°C	100ml

Viscosity Standards

Reagecon now offers an exciting new range of certified, accurate and traceable Viscosity Standards. These products can be used for calibration, control, verification, qualification or method validation of kinematic and dynamic viscosity measurement instruments (both manual and automatic). All of the products are traceable to the ITS-90 Temperature scale and the universally accepted Primary Standard value of the viscosity of water at 20°C, defined as 1.0034mm²/s (cSt) by ISO3666.

The products offer the following additional benefits;

- Manufactured and certified according to ASTM D2162 using Ubbelohde Master Viscometers. This is the internationally recognised primary method for Viscosity Standard certification.
- Each standard is certified for Kinematic Viscosity (mm²/s,cSt), Dynamic Viscosity (cP) and Density (g/ml) at a range of temperatures.
- Reagecon holds ISO17025 accreditation for temperature calibration, balance calibration and the testing of Density Standards for use on digital Density Meters.
- Extended shelf life.
- Attractive secure packaging.
- Certificates of Analysis and safety data sheets available on-line for every batch manufactured.
- Manufactured from high quality, stable base oils and additives.
- All standards observe Newtonian Fluid behaviour.

Reagecon has an extensive Research and Development facility based in Shannon, Ireland. Several speciality and additional ranges of viscosity standards are currently under development. These include Silicone Standards for the calibration of Rotational Viscometers.

Viscosity Standards expressed in cSt

Product No.	20°C	25°C	37.78°C	40°C	50°C
REVIS-N.4	0.47	0.45	0.41	0.40	
REVIS-N.8	0.74	0.70	0.61	0.60	
REVIS-N1.0	1.3	1.2	1.0	0.97	0.87
REVIS-N2	2.9	2.6	2.1	2.0	1.7
REVIS-S3	4.4	3.9	3.0	2.9	2.4
REVIS-N4	6.7	5.8	4.2	4.0	3.2
REVIS-S6	10	8.7	6.0	5.7	4.4
REVIS-N7.5	14	12	8.0	7.5	5.8
REVIS-N10	20	16	11	10	7.5
REVIS-N14	30	24	15	14	10
REVIS-S20	43	34	20	18	13
REVIS-N26	59	47	27	25	18
REVIS-N35	88	66	35	32	21
REVIS-N44	110	87	48	44	30
REVIS-S60	160	120	60	54	35
REVIS-N75	210	160	83	75	50
REVIS-N100	320	230	110	98	61

Product No.	20°C	25°C	37.78°C	40°C	50°C
REVIS-N140	400	300	160	140	90
REVIS-S200	550	400	200	180	110
REVIS-N250	790	580	280	250	160
REVIS-N350	980	710	340	310	190
REVIS-N415	1400	1000	470	410	250
REVIS-S600	1800	1300	590	520	310
REVIS-N750	2600	1800	850	750	450
REVIS-N1000	3300	2300	1100	940	560
REVIS-N1400	4900	3500	1600	1400	830
REVIS-S2000	8400	5300	1900	1600	810
REVIS-N2500	7900	5800	2800	2500	1500
REVIS-N4000	19000	12000	4000	3400	1700
REVIS-N5100	28000	17000	6000	5100	2500
REVIS-S8000	41000	25000	8000	6700	3200
REVIS-N10200	58000	36000		10000	4900
REVIS-N15000	77000	47000		13000	6100
REVIS-N18000	100000	64000		18000	8500
REVIS-S30000		79000	28000	23000	11000



Brix Standards

Summary of Features & Benefits:

Commercial Benefits

- Most extensive range available in the market place
- Customised pack options available
- Extended shelf life - 12 weeks-(Manufactured in accordance with ICUMSA guidelines)
- Extended 1 Year shelf life (For users not required to follow ICUMSA Guidelines)
- Can be used with any brand of refractometer
- Extensive range (0 - 67.5% Brix)
- Presented in a convenient high quality dropper bottle
- Available as single bottles or a handy set of 6 bottles
- Ready to Use

Technical Benefits

- Test results accredited to ISO17025 for values up to 60% Brix
- Uncertainty of measurement $\pm 0.11\%$ for all Brix values @ 20°C
- Manufactured in accordance with ISOGuide34 (Measurement uncertainty computed on a batch by batch basis under these guidelines)
- 1 full set in accordance with ICUMSA guidelines
- Consistency of product-Independent, Traceable, Certified
- Certificates of Analysis and Safety Data Sheets available online

Reagecon manufactures several ranges of Brix/Refractive Index Standards for ease of use when controlling all types of refractometers. All of these standards are manufactured using high purity raw materials. The first range - Product No's BS00 to BS60, are manufactured in accordance with ICUMSA guidelines and have an extended 12 week shelf life. The subsequent ranges - Product No.'s BS00S to BS67S for single bottles and BS00S6 to BS67S6 for packs of six bottles, contain the same raw materials as the ICUMSA range, but are stabilised to have an extended shelf - life of 1 year. These products represent excellent value for users that are not required to follow ICUMSA Guidelines.

All products are prepared gravimetrically on a weight/weight basis. Both solute (sucrose) and solvent (water) are weighed on a balance calibrated by Reagecon engineers using OIML traceable weights. Reagecon holds ISO 17025 accreditation for calibration of laboratory balances (INAB ref: 265C). The resulting Balance Certificate of Calibration is issued in accordance with the requirements of ISO/IEC 17025. The Brix value of the standard is verified using a high performance calibrated, temperature controlled refractometer. The control of this instrument is completed using high purity ISO Guide 34 accredited Brix standards similar in Brix value to the products listed.



Brix Standards - ICUMSA - 12 Week Shelf Life

Product No.	Description (20°C)	Nominal Refractive Index @ 20°C★	Pack size
BS00	Sucrose (Brix) Standard – 0%	1.332986	15ml
BS00	Sucrose (Brix) Standard – 0%	1.332986	15ml
BS05	Sucrose (Brix) Standard – 5%	1.340264	15ml
BS07	Sucrose (Brix) Standard – 7%	1.343253	15ml
BS10	Sucrose (Brix) Standard – 10%	1.347824	15ml
BS112	Sucrose (Brix) Standard – 11.2%	1.349682	15ml
BS115	Sucrose (Brix) Standard – 11.5%	1.350149	15ml
BS12	Sucrose (Brix) Standard – 12%	1.350930	15ml
BS125	Sucrose (Brix) Standard – 12.5%	1.351714	15ml
BS15	Sucrose (Brix) Standard – 15%	1.355679	15ml
BS20	Sucrose (Brix) Standard – 20%	1.363842	15ml
BS25	Sucrose (Brix) Standard – 25%	1.372328	15ml
BS30	Sucrose (Brix) Standard – 30%	1.381149	15ml
BS35	Sucrose (Brix) Standard – 35%	1.390322	15ml
BS40	Sucrose (Brix) Standard – 40%	1.399860	15ml
BS45	Sucrose (Brix) Standard – 45%	1.409777	15ml
BS50	Sucrose (Brix) Standard – 50%	1.420087	15ml
BS55	Sucrose (Brix) Standard – 55%	1.430800	15ml
BS60	Sucrose (Brix) Standard – 60%	1.441928	15ml

★ The nominal Refractive Index value is taken from the ICUMSA published tables

Brix Standards - Stabilised - 1 Year Shelf Life

Product No.	Description (20°C)	Nominal Refractive Index @ 20°C★	Pack size
BS00S	Sucrose (Brix) Standard – 0%	1.332986	15ml
BS05S	Sucrose (Brix) Standard – 5%	1.340264	15ml
BS07S	Sucrose (Brix) Standard – 7%	1.343253	15ml
BS10S	Sucrose (Brix) Standard – 10%	1.347824	15ml
BS112S	Sucrose (Brix) Standard – 11.2%	1.349682	15ml
BS115S	Sucrose (Brix) Standard – 11.5%	1.350149	15ml
BS12S	Sucrose (Brix) Standard – 12%	1.350930	15ml
BS125S	Sucrose (Brix) Standard – 12.5%	1.351714	15ml
BS15S	Sucrose (Brix) Standard – 15%	1.355679	15ml
BS20S	Sucrose (Brix) Standard – 20%	1.363842	15ml
BS25S	Sucrose (Brix) Standard – 25%	1.372328	15ml
BS30S	Sucrose (Brix) Standard – 30%	1.381149	15ml
BS35S	Sucrose (Brix) Standard – 35%	1.390322	15ml
BS40S	Sucrose (Brix) Standard – 40%	1.399860	15ml
BS45S	Sucrose (Brix) Standard – 45%	1.409777	15ml
BS50S	Sucrose (Brix) Standard – 50%	1.420087	15ml
BS55S	Sucrose (Brix) Standard – 55%	1.430800	15ml
BS60S	Sucrose (Brix) Standard – 60%	1.441928	15ml
BS67S	Sucrose (Brix) Standard – 67.5%	1.459290	15ml
		(6 months)	

★ The nominal Refractive Index value is taken from the ICUMSA published tables for all product numbers except BS67S (Brix Value 67.5%) which is a measured value.

Brix Standards - Stabilised - 1 Year Shelf Life

Set of 6

Product No.	Description (20°C)	Nominal Refractive Index @ 20°C★	Pack size
BS00S6	Sucrose (Brix) Standard – 0%	1.332986	6 x 15ml
BS05S6	Sucrose (Brix) Standard – 5%	1.340264	6 x 15ml
BS07S6	Sucrose (Brix) Standard – 7%	1.343253	6 x 15ml
BS10S6	Sucrose (Brix) Standard – 10%	1.347824	6 x 15ml
BS112S6	Sucrose (Brix) Standard – 11.2%	1.349682	6 x 15ml
BS115S6	Sucrose (Brix) Standard – 11.5%	1.350149	6 x 15ml
BS12S6	Sucrose (Brix) Standard – 12%	1.350930	6 x 15ml
BS125S6	Sucrose (Brix) Standard – 12.5%	1.351714	6 x 15ml
BS15S6	Sucrose (Brix) Standard – 15%	1.355679	6 x 15ml
BS20S6	Sucrose (Brix) Standard – 20%	1.363842	6 x 15ml
BS25S6	Sucrose (Brix) Standard – 25%	1.372328	6 x 15ml
BS30S6	Sucrose (Brix) Standard – 30%	1.381149	6 x 15ml
BS35S6	Sucrose (Brix) Standard – 35%	1.390322	6 x 15ml
BS40S6	Sucrose (Brix) Standard – 40%	1.399860	6 x 15ml
BS45S6	Sucrose (Brix) Standard – 45%	1.409777	6 x 15ml
BS50S6	Sucrose (Brix) Standard – 50%	1.420087	6 x 15ml
BS55S6	Sucrose (Brix) Standard – 55%	1.430800	6 x 15ml
BS60S6	Sucrose (Brix) Standard – 60%	1.441928	6 x 15ml
BS67S6	Sucrose (Brix) Standard – 67.5%	1.459290	6 x 15ml

★ The nominal Refractive Index value is taken from the ICUMSA published tables for all product numbers except BS67S6 (Brix Value 67.5%) which is a measured value.

Refractive Index Standards

Summary of Features & Benefits:

Commercial Benefits

- Both sucrose and solvent based standards available
- Most extensive range in the marketplace
- Customised pack options available
- Shelf life of 1 - 2 years
- Can be used with any brand of refractometer
- Extensive range (1.34325-1.65808 n_D)
- Presented in a convenient high quality dropper bottle
- Available as single bottles or a handy set of 6 bottles
- Ready to Use

Technical Benefits

- Test results accredited to ISO17025 for values up to 1.44193 n_D
- Uncertainty of measurement up to ± 0.00014 n_D units
- Consistency of product-Independent, Traceable, Certified
- Certificates of Analysis and Safety Data Sheets available online

Product No.'s RIBS07S to RIBS60S have identical components and shelf life (1 Year) to the stabilised Brix Standards already described in the previous section. However, the certified values are expressed in Refractive Index (R.I) units n_D . All these products are prepared gravimetrically on a weight/weight basis. Both solute (sucrose) and solvent (water) are weighed on a balance calibrated by Reagecon engineers using OIML traceable weights. Reagecon holds ISO 17025 accreditation for calibration of laboratory balances (INAB ref: 265C). The resulting Balance Certificate of Calibration is issued in accordance with the requirements of ISO/IEC 17025. The R.I. of the standard is verified using a high performance calibrated, temperature controlled refractometer. The control of this instrument is completed using high purity ISO Guide 34 accredited Brix standards similar in Brix value to the products listed.



Refractive Index Standards - Stabilised Sucrose - 1 Year Shelf Life

Product No.	Description (20°C)	Nominal Refractive Index @ 20°C*	Pack size
RIBS07S	Refractive Index @ 20°C	1.34325	15ml
RIBS10S	Refractive Index @ 20°C	1.34782	15ml
RIBS112S	Refractive Index @ 20°C	1.34968	15ml
RIBS115S	Refractive Index @ 20°C	1.35015	15ml
RIBS12S	Refractive Index @ 20°C	1.35093	15ml
RIBS125S	Refractive Index @ 20°C	1.35171	15ml
RIBS15S	Refractive Index @ 20°C	1.35568	15ml
RIBS20S	Refractive Index @ 20°C	1.36384	15ml
RIBS25S	Refractive Index @ 20°C	1.37233	15ml
RIBS30S	Refractive Index @ 20°C	1.38115	15ml
RIBS35S	Refractive Index @ 20°C	1.39032	15ml
RIBS40S	Refractive Index @ 20°C	1.39986	15ml
RIBS45S	Refractive Index @ 20°C	1.40978	15ml
RIBS50S	Refractive Index @ 20°C	1.42009	15ml
RIBS55S	Refractive Index @ 20°C	1.43080	15ml
RIBS60S	Refractive Index @ 20°C	1.44193	15ml

* The nominal Refractive Index value is taken from the ICUMSA published tables

Refractive Index Standards - Stabilised Sucrose - 1 Year Shelf Life

Product No.	Description (20°C)	Nominal Refractive Index @ 20°C*	Pack size
RIBS07S6	Refractive Index @ 20°C	1.34325	6 x 15ml
RIBS10S6	Refractive Index @ 20°C	1.34782	6 x 15ml
RIBS112S6	Refractive Index @ 20°C	1.34968	6 x 15ml
RIBS115S6	Refractive Index @ 20°C	1.35015	6 x 15ml
RIBS12S6	Refractive Index @ 20°C	1.35093	6 x 15ml
RIBS125S6	Refractive Index @ 20°C	1.35171	6 x 15ml
RIBS15S6	Refractive Index @ 20°C	1.35568	6 x 15ml
RIBS20S6	Refractive Index @ 20°C	1.36384	6 x 15ml
RIBS25S6	Refractive Index @ 20°C	1.37233	6 x 15ml
RIBS30S6	Refractive Index @ 20°C	1.38115	6 x 15ml
RIBS35S6	Refractive Index @ 20°C	1.39032	6 x 15ml
RIBS40S6	Refractive Index @ 20°C	1.39986	6 x 15ml
RIBS45S6	Refractive Index @ 20°C	1.40978	6 x 15ml
RIBS50S6	Refractive Index @ 20°C	1.42009	6 x 15ml
RIBS55S6	Refractive Index @ 20°C	1.43080	6 x 15ml
RIBS60S6	Refractive Index @ 20°C	1.44193	6 x 15ml

* The nominal Refractive Index value is taken from the ICUMSA published tables for all product numbers except BS67S (Brix Value 67.5%) which is a measured value.

Solvent Based Refractive Index Standards - 2 Year Shelf Life

Product No.	Description (20°C)	Nominal Refractive Index @ 20°C	Pack size
RI0138	Refractive Index @ 20°C	1.38779	15ml
RI0140	Refractive Index @ 20°C	1.40485	15ml
RI0142	Refractive Index @ 20°C	1.42345	15ml
RI0144	Refractive Index @ 20°C	1.44468	15ml
RI0146	Refractive Index @ 20°C	1.46768	15ml
RI0149	Refractive Index @ 20°C	1.49672	15ml
RI0150	Refractive Index @ 20°C	1.50044	15ml
RI0151	Refractive Index @ 20°C	1.51726	15ml
RI0154	Refractive Index @ 20°C	1.53660	15ml
RI0165	Refractive Index @ 20°C	1.65808	15ml

Solvent Based Refractive Index Standards - 2 Year Shelf Life

Product No.	Description (20°C)	Nominal Refractive Index @ 20°C	Pack size
RI01386	Refractive Index @ 20°C	1.38779	6 x 15ml
RI01406	Refractive Index @ 20°C	1.40485	6 x 15ml
RI01426	Refractive Index @ 20°C	1.42340	6 x 15ml
RI01446	Refractive Index @ 20°C	1.44468	6 x 15ml
RI01466	Refractive Index @ 20°C	1.46768	6 x 15ml
RI01496	Refractive Index @ 20°C	1.49672	6 x 15ml
RI01506	Refractive Index @ 20°C	1.50044	6 x 15ml
RI01516	Refractive Index @ 20°C	1.51726	6 x 15ml
RI01546	Refractive Index @ 20°C	1.53660	6 x 15ml
RI01656	Refractive Index @ 20°C	1.65808	6 x 15ml

Osmolality Standards

Summary of Features & Benefits:

Commercial Benefits

- Extended shelf life
- Can be used with any brand of Osmometer
- Extensive range 50 - 3000mOsm/kg H₂O (including protein based and urine based standards)
- Presented in convenient ampoules
- Ready to Use

Technical Benefits

- Test results of all standards accredited to ISO17025
- Low Uncertainty of Measurement
- Manufactured in accordance with European and United States Pharmacopoeia guidelines
- Consistency of product - Independent, Traceable, Certified
- Certificates of Analysis and Safety Data Sheets available online

Reagecon manufactures a range of Osmolality Standards for ease of use when calibrating all types of Osmometers, irrespective of brand. All Osmolality standards are manufactured using high purity raw materials in accordance with European and United States Pharmacopoeia guidelines. These products are prepared gravimetrically on a weight/weight basis. Both solute (salts) and solvent (water) are weighed on a balance calibrated by Reagecon engineers using OIML traceable weights. Reagecon holds ISO 17025 accreditation for calibration of laboratory balances (INAB ref: 265C). The resulting Balance Certificate of Calibration is issued in accordance with the requirements of ISO/IEC 17025. The Osmolality of the standard is verified using a high performance calibrated, temperature controlled Osmometer. The calibration of this instrument is completed using high purity certified Osmolality standards similar in value to the products listed below.

Product No.	Description	European Pharmacopeia 2.2.35 United States Pharmacopeia <785>	Pack size
RE-OSM-50	50mOsm/Kg H ₂ O	conforms	12 x 5ml
RE-OSM-100	100mOsm/Kg H ₂ O	conforms	12 x 5ml
RE-OSM-200	200mOsm/Kg H ₂ O	conforms	12 x 5ml
RE-OSM-290	290mOsm/Kg H ₂ O	conforms	12 x 5ml
RE-OSM-300	300mOsm/Kg H ₂ O	conforms	12 x 5ml
RE-OSM-400	400mOsm/Kg H ₂ O	conforms	12 x 5ml
RE-OSM-500	500mOsm/Kg H ₂ O	conforms	12 x 5ml
RE-OSM-850	850mOsm/Kg H ₂ O	conforms	12 x 5ml
RE-OSM-900	900mOsm/Kg H ₂ O	conforms	12 x 5ml
RE-OSM-1000	1000mOsm/Kg H ₂ O	conforms	12 x 5ml
RE-OSM-1500	1500mOsm/Kg H ₂ O	conforms	12 x 5ml
RE-OSM-2000	2000mOsm/Kg H ₂ O	conforms	12 x 5ml
RE-OSM-3000	3000mOsm/Kg H ₂ O	conforms	12 x 5ml
RE-POSM-240	Protein Based 240mOsm/Kg H ₂ O	conforms	12 x 5ml
RE-POSM-280	Protein Based 280mOsm/Kg H ₂ O	conforms	12 x 5ml
RE-POSM-320	Protein Based 320mOsm/Kg H ₂ O	conforms	12 x 5ml
RE-ROSM-300	Urine Based 300mOsm/Kg H ₂ O	conforms	12 x 5ml
RE-ROSM-800	Urine Based 800mOsm/Kg H ₂ O	conforms	12 x 5ml

Conductivity Standards

Introduction

Reagecon is the world's largest producer of conductivity standards and is credited with the invention of low level aqueous standards. The company is still the only producer worldwide with the capability to manufacture and stabilise these products at such low levels of conductivity. This low range of standards includes $1.3\mu\text{S} \pm 0.5\mu\text{S}$ - the lowest aqueous conductivity standard available worldwide. The following summary details the principle features and benefits of this exciting range of products.

Extensive range of values

Reagecon offer over 45 different values of Conductivity and Total Dissolved Solids (TDS) standards, ranging from as low as $1.3\mu\text{S}/\text{cm}$ to as high as $500,000\mu\text{S}/\text{cm}$. Customised or bespoke values can be manufactured on demand.

Matrix Matched

The matrix of a solution is defined as "the components of the sample other than the analyte". In all analytical measurements, it is of utmost importance that the matrix of the standard and the sample are the same. As conductivity measurement is, in the main, a water quality measurement, the standard used should also have an aqueous matrix. Reagecon's conductivity standards are all aqueous based, thereby eliminating any errors attributable to matrix mismatch.

Non-Hazardous

As Reagecon's conductivity standards are aqueous, they are non-hazardous. They offer the following benefits over solvent-based conductivity standards

- Ease and cost of shipping, without the need to provide hazardous goods' paperwork
- Reduced Health & Safety requirements for storage and use
- Ease and cost of disposal - solvent-based conductivity standards require expensive, specialised disposal to comply with environmental regulations.

Guaranteed Stability

As a result of the extensive R&D that led to our innovative manufacturing process, Reagecon can guarantee the stability of their complete range of conductivity standards over their entire shelf life. The stability offered by Reagecon's conductivity standards varies from that of their competitors in one vital area. We can guarantee that our conductivity standards will remain within specification, (up to their expiry date), right through their working life, regardless of when the bottle was first opened provided Good Laboratory Practise is adhered to. This eliminates the need to open a fresh bottle of standard every time the product is used. (The $1.30\mu\text{S}/\text{cm}$ conductivity standard is packaged in single-dose bottles and each bottle when opened can only be used once.) The shelf life of the products from their date of manufacture are given below.

Conductivity value ($\mu\text{S}/\text{cm}$)	Shelf Life
1.3 & 3	3 months
5 & 10	6 months
20 - 147	12 months
200 - 500,000	18 months

Accuracy

All standards have a specification of $\pm 1\%$, except $1.30\mu\text{S/cm}$, which has a specification of $1.25 - 1.35\mu\text{S/cm}$. This high level of accuracy enables the standards to be used as calibrators and/or controls in fulfilment of the most exacting industrial statutory requirements, for example the United States Pharmacopoeia monograph for Water for Injection.

Accreditation

Reagecon's conductivity measurement has been covered in the scope of our accreditation to ISO 17025 "General Requirements for Calibration and Testing Laboratories" and its predecessor, EN 45001, since 1990. Achieving accreditation involves fulfilling many highly technical criteria, including fully validating our test methods and instrumentation systems and characterising our measurement uncertainty. Reagecon's accreditation proves the technical competence of our personnel, the technical validity of our test procedures and the traceability of our measurements. Therefore, in purchasing a conductivity standard from us, not only do you have transparent traceability to primary standards, but you also have confidence that our standards are of a well-defined and tightly controlled specification.

All values are Certified & Traceable

Comprehensive Certificates of Analysis are available for all of Reagecon's conductivity standards, including detailed information on:

- Product Number
- Lot Number
- Expiry Date
- Mean specific conductance
- Date of Measurement
- Assay Limits
- Test Method Used
- Uncertainty of Measurement and Traceability Data

The complete range is traceable to primary standards from the United States National Institute for Standards and Technology (NIST). The traceability of these standards is proven by the inclusion of conductivity testing in our ISO 17025 accreditation. It is a fundamental requirement of ISO 17025 that traceability is proven.

Characterised Temperature Coefficient of Variation

Reagecon's standards are aqueous based and consequently have a very low temperature coefficient of variation. A table of conductivity variation with temperature is printed on the label of each bottle. This feature provides the user with all the information necessary to use the products across the full range of measurement temperatures encountered for their application. Non-aqueous standards have a very high coefficient of variation which leads to measurement error and renders the products totally unsuitable for non-temperature controlled conditions, or field work.

Unparalleled Technical Support

We have been manufacturing conductivity standards for over 20 years. In that time, we have built up a vast resource of technical expertise on all aspects of conductivity measurement. The members of Reagecon's Technical Services Department have written a comprehensive series of papers covering all of the practical requirements for accurate conductivity measurement. These papers and the Reagecon book, "A Practical Guide to Accurate Conductivity Measurement" are available via our website - www.reagecon.com Our Technical Services team is always on hand to answer any questions regarding the selection and use of conductivity instruments, sensors and standards.

Conductivity Standards

Product No.	Description	Pack Size
CSKC13	$1.30\mu\text{S/cm}$ @ 25°C	250ml
CSKC136	$1.30\mu\text{S/cm}$ @ 25°C	6x250ml
CSKC3	$3\mu\text{S/cm}$ @ 25°C	250ml
CSKC5	$5\mu\text{S/cm}$ @ 25°C	500ml
CSKC10	$10\mu\text{S/cm}$ @ 25°C	500ml
CSKC20	$20\mu\text{S/cm}$ @ 25°C	500ml
CSKC238	$23.8\mu\text{S/cm}$ @ 25°C	500ml

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

TDS Standard

Product No.	Description	Pack Size
CS1382	1382 ppm NaCl at 25°C	500ml

TOC/TIC Standards - Premium Range

Summary of Features & Benefits:

Commercial Benefits

- Extensive range (500ppb to 20,000ppm /0.5mg/L to 20,000mg/L)
- Presented in single - use glass vials
- Extended shelf life
- Ready to Use
- Offered as single vials or convenient kit format

Technical Benefits

- In accordance with USP <643> and <1051> guidelines
- Consistency of product - Independent, Traceable, Certified
- Certificates of Analysis and Safety Data Sheets available online
- Extremely high specification and purity
- Manufactured in a cleanroom environment
- Vials are manufactured, cleaned and leached specifically for low level TOC standards
- Products manufactured from Ultra-Pure Water, produced by a special proprietary process

Reagecon manufactures a range of Total Organic Carbon (TOC) and Total Inorganic Carbon (TIC) Standards for ease of use when calibrating all types of TOC analysers, irrespective of brand. All of our TOC standards are manufactured using high purity raw materials in accordance with USP <1051> and <643> guidelines. These products are prepared gravimetrically on a weight/weight basis. Both solute (salts) and solvent (water) are weighed on a balance calibrated by Reagecon engineers using OIML traceable weights. Reagecon holds ISO 17025 accreditation for calibration of laboratory balances (INAB ref: 265C). The resulting Balance Certificate of Calibration is issued in accordance with the requirements of ISO/IEC 17025. The TOC / TIC of the standard is verified using a high performance calibrated TOC analyser. The calibration of this instrument involves the use of high purity ISO Guide 34 accredited TOC standards similar in TOC value to the products listed in the following tables.



TOC/TIC Standards

Product No.	Description	Pack Size
RTOCW	USP Reagent Water Rw	35ml
RTOCRs	USP Standard Sucrose Solution Rs (0.5mg/L C)	35ml
RTOCRss	USP System Suitability Solution 1, 4-Benzoquinone (0.5mg/L C)	35ml
RTOCK08	TOC Standard 0.5mg/L C as KHP	35ml
RTOCK09	TOC Standard 1.0mg/L C as KHP	35ml
RTOCK10	TOC Standard 1.5mg/L C as KHP	35ml
RTOCK11	TOC Standard 10mg/L C as KHP	35ml
RTOCK12	TOC Standard 25mg/L C as KHP	35ml
RTOCK13	TOC Standard 50mg/L C as KHP	35ml
RTOCK14	TOC Standard 5mg/L C as KHP	35ml
RTOCK15	TOC Standard 2.5mg/L C as KHP	35ml
RTOCK16	TOC Standard 4mg/L C as KHP	35ml
RTOCK17	TOC Standard 100mg/L C as KHP	35ml
RTOCK18	TOC Standard 1,000mg/L C as KHP	35ml
RTOCK19	TOC Standard 5,000mg/L C as KHP	35ml
RTOCK20	TOC Standard 20,000mg/L C as KHP	35ml
RTICN01	TIC Standard 0.5mg/L as Na ₂ CO ₃	35ml
RTICN02	TIC Standard 1.0mg/L as Na ₂ CO ₃	35ml
RTICN03	TIC Standard 1.5mg/L as Na ₂ CO ₃	35ml
RTICN04	TIC Standard 2mg/L as Na ₂ CO ₃	35ml
RTICN05	TIC Standard 5mg/L as Na ₂ CO ₃	35ml
RTICN06	TIC Standard 10mg/L as Na ₂ CO ₃	35ml
RTICN07	TIC Standard 25mg/L as Na ₂ CO ₃	35ml
RTICN08	TIC Standard 50mg/L as Na ₂ CO ₃	35ml
RTICN09	TIC Standard 4mg/L as Na ₂ CO ₃	35ml
RTOCS01	TOC Standard 0.5mg/L C as Sucrose	35ml
RTOCS02	TOC Standard 1.0mg/L C as Sucrose	35ml
RTOCS03	TOC Standard 2mg/L C as Sucrose	35ml
RTOCS04	TOC Standard 5mg/L C as Sucrose	35ml
RTOCS05	TOC Standard 10mg/L C as Sucrose	35ml
RTOCS06	TOC Standard 25mg/L C as Sucrose	35ml
RTOCS07	TOC Standard 50mg/L C as Sucrose	35ml
RTOCS08	TOC Standard 0.25mg/L C as Sucrose	35ml
RTOCS09	TOC Standard 0.75mg/L C as Sucrose	35ml
RTOCS10	TOC Standard 4mg/L C as Sucrose	35ml
RTOCS11	TOC Standard 500mg/L C as Sucrose	35ml

Product No.	Description	Pack Size
RTOCN01	TOC Standard 50mg/L C as Nicotinamide	35ml
RTOCN02	TOC Standard 0.5mg/L C as Nicotinamide	35ml
RTOCM01	TOC Standard 0.5mg/L C as Methanol	35ml
RTOCWa	USP Reagent Water Rw acidified with HCl	35ml
RTOCRsa	USP Standard Sucrose Solution Rs (0.5mg/L C) acidified with HCl	35ml
RTOCRssa	USP System Suitability Solution 1,4-Benzoquinone (0.5mg/L C) acidified with HCl	35ml
RTOCUSP1	USP System Suitability Set consisting of 1 x 40ml vial of Reagent Water (RTOCW), Standard Solution (RTOCRs) and Suitability Solution (RTOCRss)	3 x 35ml
RTOCUSP2	2 x USP System Suitability Set consisting of 1 x 40ml vial of Reagent Water (RTOCW), Standard Solution (RTOCRs) and Suitability Solution (RTOCRss). Delivered at six month intervals	3 x 35ml
RTOCUSP4	4 x USP System Suitability Sets, consisting of: 1 x 40ml vial of Reagent Water (RTOCW), Standard Solution (RTOCRs) and Suitability Solution (RTOCRss). Delivered at three month intervals	3 x 35ml
RTOCUSP12	12 x (USP System Suitability Set consisting of 1 x 40ml vial of Reagent Water (RTOCW), Standard Solution (RTOCRs) and Suitability Solution (RTOCRss). Delivered at monthly intervals	3 x 35ml
RTOCUSP52	52 x (USP System Suitability Set consisting of 1 x 40ml vial of Reagent Water (RTOCW), Standard Solution (RTOCRs) and Suitability Solution (RTOCRss). Delivered at 2 weekly intervals	3 x 35ml
RTOCUSP260	260 x USP System Suitability Set consisting of 1 x 40ml vial of Reagent Water (RTOCW), Standard Solution (RTOCRs) and Suitability Solution (RTOCRss). Delivered at 2 weekly intervals	3 x 35ml
RC120001	Carbon Calibration Set 1-50mg/L C consisting of 1 x 40ml vial each of calibration blank (RTOCW), TOC Standards 1(RTOCK09), 5 (RTOCK14), 10 (RTOCK11), 25 (RTOCK12), 50 (RTOCK13) mg/L C as KHP, TIC Standards 1mg/L (RTICN02), 5mg/L (RTICN05), 10mg/L (RTICN06), 25mg/L (RTICN07), 50mg/L (RTICN08) C as Na ₂ CO ₃	11 x 35ml
RC120002	1mg C/L Carbon Standard Set consisting of 1 x 40ml vial each of calibration blank (RTOCW), 1mg/L (RTOCK09) C TOC as KHP and 1 mg/L (RTICN02) C TIC as Na ₂ CO ₃	3 x 35ml
RC120003	1mg C/L Carbon Verification Set consisting of 1 x 40ml vial each of calibration blank (RTOCW), 1mg/L (RTOCS02) C TOC as Sucrose and 1 mg/L (RTICN02) C TIC as Na ₂ CO ₃	3 x 35ml
RC120004	1mg C/L Carbon Standard Set and Verification Set consisting of 1 x RC120002 and 1 x RC120003	6 x 35ml
RC120005	5mg C/L Carbon Standard Set consisting of 1 x 40ml vial each of calibration blank (RTOCW), 5mg/L (RTOCK14) C TOC as KHP and 5 mg/L (RTICN05) C TIC as Na ₂ CO ₃	3 x 35ml
RC120006	5mg C/L Carbon Verification Set consisting of 1 x 40ml vial each of calibration blank (RTOCW), 5mg/L (RTOCS04) TOC C as Sucrose and 5 mg/L (RTICN05) TIC C as Na ₂ CO ₃	3 x 35ml
RC120007	5mg C/L Carbon Standard and Verification Set consisting of 1 x RC120005 and 1 x RC120006	6 x 35ml

Product No.	Description	Pack Size
RC120008	0.5mg/L Carbon Verification Set consisting of 1 x 40ml vial each of calibration blank (RTOCW), 0.5mg/L (RTOCS01) TOC C as Sucrose and 0.5mg/L (RTICN01) TIC C as Na ₂ CO ₃	3 x 35ml
RC120009	1mg/L Carbon Standard and 0.5mg/L Carbon Verification Set Consisting of 1 x RC120002 and 1 x RC120008	6 x 35ml
RC120010	Validation Set -- Accuracy Precision (0.5mg), consisting of 1 x Reagent water (RTOCW) and 1 x 0.5mg/L C as sucrose (RTOCS01) in 40ml Vials	2 x 35ml
RC120011	Validation Set -- Linearity, consisting of 1x Reagent water blank (RTOCW) and 1 each of 0.25mg/L (RTOCS08), 0.5mg/L (RTOCS01), 0.75mg /L (RTOCS09),C as Sucrose in 40ml vials	4 x 35ml
RC120012	Validation Set -- Specificity, consisting of 1 x Reagent water (RTOCW), 1 x 0.5mg/L (RTOCM01) C as Methanol, 1 x 0.5mg/L (RTOCN02) C as Nicotinamide and 1 x 0.5mg/L (RTOCK08) C as KHP in 40ml vials17/02/2013 14:18:00	4 x 35ml
RC120013	Validation Set -- Robustness Standards, consisting of 1 x Reagent water (RTOCWa), 1 x Standard Solution (RTOCRsa), 1 x System suitability solution (RTOCRssa) in 40ml vials. All standards in the set acidified	3 x 35ml
RC120014	Validation Set -- Complete , consisting of 1xRC120010, 1xRC120011, RC120012 and RC120013	13 x 35ml
RC120015	10mg C/L Carbon Standard Set consisting of 1 x 40ml vial each of calibration blank (RTOCW), 10mg/L (RTOCK11) TOC C as KHP and 10mg/L (RTICN06) TIC C as Na ₂ CO ₃	3 x 35ml
RC120016	Multipoint calibration set for Sievers 5310C, consisting of 1 x calibration blank (RTOCW), 1 each of 0.25mg/L (RTOCK15), 1mg/L (RTOCK09), 5mg/L (RTOCK14), 25mg/L (RTOCK12), 50mg/L (RTOCK13) C as KHP TOC standards and 1 each of 1mg/L (RTICN02), 5mg/L (RTICN05), 10mg/L (RTICN06), 25mg/L (RTICN07), 50mg/L (RTICN08) C as Na ₂ CO ₃ TIC standards	11 x 35ml
RC120017	2mg C/L Carbon Verification Set consisting of 1 x 40ml vial each of calibration blank (RTOCW), 2mg/L (RTOCS03) TOC C as Sucrose and 2mg/L (RTICN04) TIC C as Na ₂ CO ₃	3 x 35ml
RC120018	10mg C/L Carbon Verification Set consisting of 1 x 40ml vial each of calibration blank (RTOCW), 10mg/L (RTOCS05) TOC C as Sucrose and 10mg/L (RTICN06) TIC C as Na ₂ CO ₃	3 x 35ml
RC120019	3 point Carbon Verification Set consisting of 1 x 40ml Vial each of 1mg/L (RTOCK09), 5mg/L (RTOCK14), 10mg/L (RTOCK11) C as KHP	3 x 35ml

Sample Certificate for Reagecon's Premium Range TOC Standard

Reagecon

CERTIFICATE OF GRAVIMETRIC PREPARATION

PRODUCT:	TOC Standard 0.5mg/L C as KHP
PRODUCT NO:	RT0CK08
LOT NO:	RT0CK081303
DATE OF MANUFACTURE:	27/02/2013
EXPIRY DATE:	27/02/2015
SPECIFICATION:	0.000100 - 0.000125 wt/wt KHP
CERTIFIED VALUE:	0.000104 +/- 0.01522% wt/wt KHP

Equivalent TOC value is 0.492ppm.

The uncertainty reported above was calculated in compliance with the Guide to the Expression of Uncertainty in Measurement (GUM), JCGM 100:2008 and includes uncertainty contributions due to the purity assessment of the raw material, the gravimetric preparation of the solution, the homogeneity of the filled batch.

TRACEABILITY IN THE PRODUCTION OF THIS STANDARD:

This product was manufactured and certified in accordance with the requirements of ISO Guide 34 and ISO Guide 35. It was prepared gravimetrically on a weight/weight basis. Both solute and solvent were weighed on a balance calibrated by Reagecon engineers using OIML traceable weights. Reagecon holds ISO 17025 accreditation for calibration of non-automatic weighing machines (26/SC). The resulting Balance Certificate of Calibration was issued in accordance with the requirements of ISO/IEC 17025. The balance was calibrated under monitored environmental conditions and atmospheric pressure. Tests were performed for capacity, readability, repeatability, accuracy and linearity. The equipment used is detailed as follows.

BALANCE ID No: RRD015
CALIBRATION DATE OF BALANCE: 26th September 2012

CALIBRATION AUTHORITY OF BALANCES: Reagecon Diagnostics Ltd, ISO 17025
 Accreditation No. 265C

WEIGHTS No: RTS (2 & RT5 13)
CALIBRATION DATE OF WEIGHTS: 19th May 2012
CALIBRATION AUTHORITY OF WEIGHTS: European Instruments (UKAS No. 0438)

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The certified concentration was verified by the analysis using a high performance calibrated TOC instrument according to test method TP/TOC.

The value of the standard will be monitored throughout its shelf life.

Approved By: R&D Chemist
Date: 27/02/2013

This certificate must not be reproduced except in full.

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TOC/TIC Standards - Quality Range



Summary of Features & Benefits:

Commercial Benefits

- Can be used with any brand of TOC analyser
- Extensive range (5ppm - 4000ppm)
- Extended shelf life
- Ready to Use
- The Quality Range represents excellent value for money
- Other TOC/TIC values can be quoted for upon request
- Mixed TOC and TIC standards available as a normal part of the range

Technical Benefits

- Consistency of product - Independent, Traceable, Certified
- Certificates of Analysis and Safety Data Sheets available online
- Presented in special 500ml twin neck bottles (all values above 50ppm) - prevents product contamination, evaporation or interference
- Twin neck bottles come with a special dosing device
- All values below 50ppm are packed in specially cleaned and leached 500ml amber glass bottles

TOC/TIC 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

TIC Standards

Product No.	Description	Pack Size
TIC5	Total Inorganic Standard 5ppm	500ml
TIC50	Total Inorganic Standard 50ppm	500ml
TIC100	Total Inorganic Standard 100ppm	500ml
TIC500	Total Inorganic Standard 500ppm	500ml
TIC1M	Total Inorganic Standard 1000ppm	500ml
TIC2M	Total Inorganic Standard 2000ppm	500ml

Mixed TOC/TIC Standards

Product No.	Description	Pack Size
TOIC10	Mixed Standard (equal concentrations of organic & inorganic Carbon) 10ppm	500ml
TOIC100	Mixed Standard (equal concentrations of organic & inorganic Carbon) 100ppm	500ml
TOIC1M	Mixed Standard (equal concentrations of organic & inorganic Carbon) 1000ppm	500ml
TOIC2M	Mixed Standard (equal concentrations of organic & inorganic Carbon) 2000ppm	500ml
TOIC4M	Mixed Standard (equal concentrations of organic & inorganic Carbon) 4000ppm	500ml



TOC/TIC Standards - Instrument Specific

Reagecon's Premium Range of TOC/TIC Standards as detailed in the second last chapter are an independent range of standards suitable for use on the Sievers® Range of Laboratory TOC/TIC analysers (35ml vials). The Quality Range as detailed in the previous chapter is suitable for other TOC/TIC analysers available in the market place.

Reagecon is pleased to announce that at the beginning of 2014, we will be launching an extensive range of new independent standards, suitable for use on other leading brands of TOC/TIC analysers for laboratory and online applications. Although the range is not totally exhaustive it does include independent standards for Brands listed alphabetically below such as;

- Analytik Jena®
- Anatel®
- OI Analytical®
- Shimadzu®
- Sievers®
- Teledyne Tekmar®
- Thornton®

These standards are developed, validated, manufactured and tested to an extremely high specification. We believe that they offer real choice in the market place and represent exceptionally good value.

Instrument	Product No.	Description	Pack size
Analytik Jena®	ISTOC1103	System Suitability Set to USP ; Reagent Water, 0.5 mg/L C Sucrose and 0.5 mg/L C 1,4-Benzoquinone. 40ml vials	Kit
Analytik Jena®	ISTOC1104	System Suitability Set to JP; Reagent Water and 0.5 mg/L C from Sodium Dodecylbenzene Sulfonate. 40ml vials	Kit
Analytik Jena®	ISTOC1105	USP Reagent Water	40ml
Analytik Jena®	ISTOC1106	JP Reagent water	40ml
Analytik Jena®	ISTOC1107	0.5 mg/L C from USP Sucrose	40ml
Analytik Jena®	ISTOC1108	0.5 mg/L C from USP 1,4-Benzoquinone	40ml
Analytik Jena®	ISTOC1113	C from USP 1,4-Benzoquinone. 125ml Bottle	Kit
Analytik Jena®	ISTOC1115	USP Reagent Water	125ml
Analytik Jena®	ISTOC1116	0.5 mg/L C from USP Sucrose	125ml
Analytik Jena®	ISTOC1117	0.5 mg/L C from USP 1,4-Benzoquinone	125ml
Analytik Jena®	ISTOC1124	0.5 mg/L C from Sodium Dodecylbenzene Sulfonate	40ml
Analytik Jena®	ISTOC1128	USP System Suitability Kit; Reagent Water, 0.5 mg/L C from USP Sucrose and 0.5 mg/L C from USP 1,4-Benzoquinone. 250ml Bottles	Kit
Analytik Jena®	ISTOC1129	USP System Suitability Set, Reagent Water, 0.5 mg/L C USP Sucrose and 0.5 mg/L C USP 1,4-Benzoquinone. 250ml Bottles	Kit
Analytik Jena®	ISTOC1130	USP Reagent Water	250ml
Analytik Jena®	ISTOC1131	0.5 mg/L C from USP Sucrose	250ml
Analytik Jena®	ISTOC1132	0.5 mg/L C from USP 1,4-Benzoquinone	250ml
Analytik Jena®	ISTOC1136	USP Reagent Water	500ml
Analytik Jena®	ISTOC1137	0.5 mg/L C from USP Sucrose	500ml
Analytik Jena®	ISTOC1138	0.5 mg/L C from USP 1,4-Benzoquinone	500ml
Analytik Jena®	ISTOC1139	USP System Suitability Kit; Reagent Water, 0.5 mg/L C from USP Sucrose and 0.5 mg/L C from USP 1,4-Benzoquinone. 500ml Bottles	Kit
Analytik Jena®	ISTOC1150	USP Reagent Water	1L
Analytik Jena®	ISTOC1151	0.5 mg/L C from USP Sucrose	1L
Analytik Jena®	ISTOC1152	0.5 mg/L C from USP 1,4-Benzoquinone	1L
Analytik Jena®	ISTOC1153	USP System Suitability Kit; Reagent Water, 0.5 mg/L C from USP Sucrose and 0.5 mg/L C from USP 1,4-Benzoquinone. 1L Bottles	Kit
Anatel® A-1000	ISTOC1030	Calibration Blank	1L

Instrument	Product No.	Description	Pack size
Anatel ® A-1000	ISTOC1034	Calibration Standard 0.25 mg/L C NIST Sucrose	1L
Anatel ® A-1000	ISTOC1038	Calibration Standard 0.5 mg/L C NIST Sucrose	1L
Anatel ® A-1000	ISTOC1046	Calibration Standard 0.75 mg/L C NIST Sucrose	1L
Anatel ® A-1000	ISTOC1114	USP System Suitability Set, Reagent Water, 0.5 mg/L C USP Sucrose and 0.5 mg/L C USP 1,4-Benzoquinone. 125ml Bottles	Kit
Anatel ® A-1000	ISTOC1165	System Suitability Set ; Reagent Water, 0.5 mg/L C USP Sucrose and 0.5 mg/L C USP 1,4-Benzoquinone. 1L bottles	Kit
Anatel ® A643	ISTOC1016	100µS/cm Conductivity Standard for Calibration	60ml
Anatel ® A643	ISTOC1021	Individual Calibration Blank	125ml
Anatel ® A643	ISTOC1025	Calibration Blank	250ml
Anatel ® A643	ISTOC1029	Calibration Blank	500ml
Anatel ® A643	ISTOC1031	Calibration Standard 0.25 mg/L C NIST Sucrose	125ml
Anatel ® A643	ISTOC1032	Calibration Standard 0.25 mg/L C NIST Sucrose	250ml
Anatel ® A643	ISTOC1033	Calibration Standard 0.25 mg/L C NIST Sucrose	500ml
Anatel ® A643	ISTOC1035	Calibration Standard 0.5 mg/L C NIST Sucrose	125ml
Anatel ® A643	ISTOC1036	Calibration Standard 0.5 mg/L C NIST Sucrose	250ml
Anatel ® A643	ISTOC1037	Calibration Standard 0.5 mg/L C NIST Sucrose	500ml
Anatel ® A643	ISTOC1039	Calibration Standard 0.75 mg/L C NIST Sucrose	125ml
Anatel ® A643	ISTOC1040	Calibration Standard 0.75 mg/L C NIST Sucrose	250ml
Anatel ® A643	ISTOC1045	Calibration Standard 0.75 mg/L C NIST Sucrose	500ml
Anatel ® A643	ISTOC1079	Calibration Blank	60ml
Anatel ® A643	ISTOC1080	System Suitability Set; 2 x Reagent Water, 0.5 mg/L C USP Sucrose, 0.5 mg/L C USP 1,4-Benzoquinone and 0.25 mg/L C NIST Sucrose as check	60ml
Anatel ® A643	ISTOC1081	Calibration Standard 0.25 mg/L C NIST Sucrose	60ml
Anatel ® A643	ISTOC1082	Calibration Standard 0.5 mg/L C NIST Sucrose	60ml
Anatel ® A643	ISTOC1083	Calibration Standard 0.75 mg/L C NIST Sucrose	60ml
Anatel ® A643	ISTOC1122	USP System Suitability Set, Reagent Water, 0.5 mg/L C USP Sucrose and 0.5 mg/L C USP 1,4-Benzoquinone. 125ml Bottles	Kit
Anatel ® A643	ISTOC1134	USP System Suitability Set, 2 x Reagent Water, 0.5 mg/L C USP Sucrose and 0.5 mg/L C USP 1,4-Benzoquinone. 250ml Bottles	Kit
Anatel ® A643	ISTOC1147	USP System Suitability Set, 500ml Bottles	500ml
Anatel ® A643	ISTOC1158	USP System Suitability Set, Reagent Water, 0.5 mg/L C USP Sucrose and 0.5 mg/L C USP 1,4-Benzoquinone. 1L bottles	Kit
Anatel ® A643	ISTOC1166	Validation Set; 2 x Blanks, 0.25 mg/L C NIST Sucrose, 0.5 mg/L C NIST Sucrose and 0.75 mg/L C NIST Sucrose. 60ml Bottles	Kit
Anatel ® A643	ISTOC1169	Validation Kit, 2 x Blanks and 0.5 mg/L C NIST Sucrose. 60ml Bottles	Kit
Anatel ® Anatoc	ISTOC1019	Individual Calibration Blank	125ml
Anatel ® Anatoc	ISTOC1023	Individual Calibration Blank	250ml
Anatel ® Anatoc	ISTOC1027	Calibration Blank	500ml
Anatel ® Anatoc	ISTOC1056	Calibration Standard 0.25 mg/L C NIST KHP	125ml
Anatel ® Anatoc	ISTOC1057	Calibration Standard 0.25 mg/L C NIST KHP	250ml
Anatel ® Anatoc	ISTOC1058	Calibration Standard 0.25 mg/L C NIST KHP	500ml
Anatel ® Anatoc	ISTOC1060	Calibration Standard 0.5 mg/L C NIST KHP	125ml
Anatel ® Anatoc	ISTOC1062	Calibration Standard 0.5 mg/L C NIST KHP	250ml
Anatel ® Anatoc	ISTOC1063	Calibration Standard 0.5 mg/L C NIST KHP	500ml
Anatel ® Anatoc	ISTOC1066	Calibration Standard 1mg/L NIST KHP	125ml
Anatel ® Anatoc	ISTOC1068	Calibration Standard 1mg/L NIST KHP	250ml
Anatel ® Anatoc	ISTOC1069	Calibration Standard 1mg/L NIST KHP	500ml
Anatel ® Anatoc	ISTOC1078	Calibration Standard 1000 mg/L C NIST Sucrose	500ml
Anatel ® Anatoc	ISTOC1129	USP System Suitability Set, Reagent Water, 0.5 mg/L C USP Sucrose and 0.5 mg/L C USP 1,4-Benzoquinone. 250ml Bottles	Kit
Anatel ® Anatoc	ISTOC1135	USP System Suitability Set, Reagent Water, 0.5 mg/L C USP Sucrose and 0.5 mg/L C USP 1,4-Benzoquinone. 500ml Bottles	Kit
Anatel ®PAT700	ISTOC1001	Calibration Blank	60ml
Anatel ®PAT700	ISTOC1002	0.25 mg/L C NIST Sucrose Calibration Standard	60ml
Anatel ®PAT700	ISTOC1003	0.5 mg/L C from NIST Sucrose Calibration Standard	60ml
Anatel ®PAT700	ISTOC1004	0.75 mg/L C from NIST Sucrose Calibration Standard	60ml
Anatel ®PAT700	ISTOC1005	USP Reagent Water System Suitability Standard	60ml
Anatel ®PAT700	ISTOC1006	0.5 mg/L C from USP Sucrose System Suitability Standard	60ml
Anatel ®PAT700	ISTOC1007	0.5 mg/L C from USP 1,4-Benzoquinone System Suitability Standard	60ml
Anatel ®PAT700	ISTOC1008	USP System Suitability Set Reagent Water, 0.5 mg/L C USP Sucrose and 0.5 mg/L C USP 1,4-Benzoquinone. 500ml Bottles	Kit
Anatel ®PAT700	ISTOC1009	System Suitability Set to USP; Reagent Water , 0.5 mg/L C USP Sucrose and 0.5 mg/L C USP 1,4-Benzoquinone. 60ml Bottles	Kit

Instrument	Product No.	Description	Pack size
Anatel ®PAT700	ISTOC1010	Calibration Kit containing a Blank, 0.25 mg/L C NIST Sucrose, 0.5 mg/L C NIST Sucrose and 0.75 mg/L C NIST Sucrose. 60ml Bottles	Kit
Anatel ®PAT700	ISTOC1015	100µS/cm Conductivity Standard for Calibration	40ml
Anatel ®PAT700	ISTOC1171	Validation Kit, 2 x Blanks and 0.5 mg/L C NIST Sucrose. 60ml Bottles	Kit
Anatel ®TOC600	ISTOC1014	100µS/cm Conductivity Standard for Calibration	125ml
Anatel ®TOC600	ISTOC1021	Calibration Blank	125ml
Anatel ®TOC600	ISTOC1025	Calibration Blank	250ml
Anatel ®TOC600	ISTOC1029	Calibration Blank	500ml
Anatel ®TOC600	ISTOC1031	Calibration Standard 0.25 mg/L C NIST Sucrose	125ml
Anatel ®TOC600	ISTOC1032	Calibration Standard 0.25 mg/L C NIST Sucrose	250ml
Anatel ®TOC600	ISTOC1033	Calibration Standard 0.25 mg/L C NIST Sucrose	500ml
Anatel ®TOC600	ISTOC1035	Calibration Standard 0.5 mg/L C NIST Sucrose	125ml
Anatel ®TOC600	ISTOC1036	Calibration Standard 0.5 mg/L C NIST Sucrose	250ml
Anatel ®TOC600	ISTOC1037	Calibration Standard 0.5 mg/L C NIST Sucrose	500ml
Anatel ®TOC600	ISTOC1039	Calibration Standard 0.75 mg/L C NIST Sucrose	125ml
Anatel ®TOC600	ISTOC1040	Calibration Standard 0.75 mg/L C NIST Sucrose	250ml
Anatel ®TOC600	ISTOC1045	Calibration Standard 0.75 mg/L C NIST Sucrose	500ml
Anatel ®TOC600	ISTOC1079	Calibration Blank	60ml
Anatel ®TOC600	ISTOC1081	Calibration Standard 0.25 mg/L C NIST Sucrose	60ml
Anatel ®TOC600	ISTOC1082	Calibration Standard 0.5 mg/L C NIST Sucrose	60ml
Anatel ®TOC600	ISTOC1083	Calibration Standard 0.75 mg/L C NIST Sucrose	60ml
Anatel ®TOC600	ISTOC1123	USP System Suitability Set; Reagent Water, 0.5 mg/L C from USP Sucrose and 0.5 mg/L C from USP 1,4-benzo-quinone. 125ml Bottles	Kit
Anatel ®TOC600	ISTOC1167	Calibration Kit; Blank, 0.25 mg/L C NIST Sucrose, 0.5 mg/L C NIST Sucrose and 0.75 mg/L C NIST Sucrose. 60ml Bottles	Kit
Anatel ®TOC600	ISTOC1170	Validation Kit, Blank and 0.5 mg/L C NIST Sucrose. 60ml Bottles	Kit
Comet Analytics®	ISTOC1133	Reagent Water, 0.5 mg/L C from USP Sucrose and 0.5 mg/L C from USP 1,4-Benzoquinone. 250ml Bottles	Kit
Lighthouse®	ISTOC1160	USP System Suitability Kit; 2 x Reagent Water, 0.5 mg/L C USP Sucrose and 0.500 mg/L C USP 1,4-Benzoquinone. 60ml Bottles	Kit
Lighthouse®	ISTOC1166	Validation Set; 2 x Blanks, 0.25 mg/L C NIST Sucrose, 0.5 mg/L C NIST Sucrose and 0.75 mg/L C NIST Sucrose. 60ml Bottles	Kit
OI Analytical®	ISTOC1018	Individual TOC/TIC Calibration Blank	40ml
OI Analytical®	ISTOC1020	Individual TOC/TIC Calibration Blank	125ml
OI Analytical®	ISTOC1059	Calibration Standard 0.5 mg/L C NIST KHP	40ml
OI Analytical®	ISTOC1061	Calibration Standard 0.5 mg/L C NIST KHP	125ml
OI Analytical®	ISTOC1065	Calibration Standard 1mg/L NIST KHP	40ml
OI Analytical®	ISTOC1067	Calibration Standard 1mg/L NIST KHP	125ml
OI Analytical®	ISTOC1070	Calibration Standard 5mg/L NIST KHP	40ml
OI Analytical®	ISTOC1071	Calibration Standard 5mg/L NIST KHP	125ml
OI Analytical®	ISTOC1072	Calibration Standard 10mg/L NIST KHP	40ml
OI Analytical®	ISTOC1073	Calibration Standard 10mg/L NIST KHP	125ml
OI Analytical®	ISTOC1074	Calibration Standard 25mg/L NIST KHP	40ml
OI Analytical®	ISTOC1075	Calibration Standard 25mg/L NIST KHP	125ml
OI Analytical®	ISTOC1076	Calibration Standard 50 mg/L C NIST Sucrose	40ml
OI Analytical®	ISTOC1077	Calibration Standard 50 mg/L C NIST Sucrose	125ml
OI Analytical®	ISTOC1104	System Suitability Set to JP; Reagent Water and 0.5 mg/L C from Sodium Dodecylbenzene Sulfonate. 40ml vials	Kit
OI Analytical®	ISTOC1106	JP Reagent water	40ml
OI Analytical®	ISTOC1110	USP Reagent Water	40ml
OI Analytical®	ISTOC1111	0.5 mg/L C from USP Sucrose	40ml
OI Analytical®	ISTOC1112	0.5 mg/L C from USP 1,4-Benzoquinone	40ml
OI Analytical®	ISTOC1118	USP Reagent Water	125ml
OI Analytical®	ISTOC1120	0.5 mg/L C from USP Sucrose	125ml
OI Analytical®	ISTOC1121	0.5 mg/L C from USP 1,4-Benzoquinone	125ml
OI Analytical®	ISTOC1126	0.5 mg/L C from USP Sucrose	250ml
OI Analytical®	ISTOC1127	0.5 mg/L C from USP 1,4-Benzoquinone	250ml
OI Analytical®	ISTOC1140	USP Reagent Water	500ml
OI Analytical®	ISTOC1141	0.5 mg/L C from USP Sucrose	500ml
OI Analytical®	ISTOC1142	0.5 mg/L C from USP 1,4-Benzoquinone	500ml
OI Analytical®	ISTOC1154	USP Reagent Water	1L
OI Analytical®	ISTOC1155	0.5 mg/L C from USP Sucrose	1L
OI Analytical®	ISTOC1156	0.5 mg/L C from USP 1,4-Benzoquinone	1L
Shimadzu®	ISTOC1018	Individual TOC/TIC Calibration Blank	40ml
Shimadzu®	ISTOC1041	Validation Kit for TOC contains a blank and 2 x 100mg/l C NIST KHP. 125ml Bottles	Kit

Instrument	Product No.	Description	Pack size
Shimadzu®	ISTOC1042	Validation Kit for TOC contains a blank and 2 x 10mg/l C NIST KHP. 125ml Bottles	Kit
Shimadzu®	ISTOC1043	Validation Kit for Wet Chemistry TOC contains 3 x blanks, 2 x 0.5mg/L C NIST KHP and 1mg/L NIST KHP. 40ml vials	Kit
Shimadzu®	ISTOC1044	Calibration Kit; 2 x blank, 2 x 0.1 mg/L C NIST KHP, 2 x 0.25 mg/L C NIST KHP, 2 x 0.5 mg/L C NIST KHP, 0.75 mg/L C NIST KHP and 1 mg/L C NIST KHP. 40ml vials	Kit
Shimadzu®	ISTOC1054	Calibration Standard 0.1 mg/L C NIST KHP	40ml
Shimadzu®	ISTOC1055	Calibration Standard 0.25 mg/L C NIST KHP	40ml
Shimadzu®	ISTOC1059	Calibration Standard 0.5 mg/L C NIST KHP	40ml
Shimadzu®	ISTOC1064	Calibration Standard 0.75 mg/L C NIST KHP	40ml
Shimadzu®	ISTOC1065	Calibration Standard 1mg/L NIST KHP	40ml
Shimadzu®	ISTOC1070	Calibration Standard 5mg/L NIST KHP	40ml
Shimadzu®	ISTOC1072	Calibration Standard 10mg/L NIST KHP	40ml
Shimadzu®	ISTOC1074	Calibration Standard 25mg/L NIST KHP	40ml
Shimadzu®	ISTOC1076	Calibration Standard 50 mg/L C NIST Sucrose	40ml
Shimadzu®	ISTOC1104	System Suitability Set to JP; Reagent Water and 0.5 mg/L C from Sodium Dodecylbenzene Sulfonate. 40ml vials	Kit
Shimadzu®	ISTOC1106	JP Reagent water	40ml
Shimadzu®	ISTOC1110	USP Reagent Water	40ml
Shimadzu®	ISTOC1111	0.5 mg/L C from USP Sucrose	40ml
Shimadzu®	ISTOC1112	0.5 mg/L C from USP 1,4-Benzoquinone	40ml
Shimadzu®	ISTOC1118	USP Reagent Water	125ml
Shimadzu®	ISTOC1120	0.5 mg/L C from USP Sucrose	125ml
Shimadzu®	ISTOC1121	0.5 mg/L C from USP 1,4-Benzoquinone	125ml
Shimadzu®	ISTOC1125	USP Reagent Water	250ml
Shimadzu®	ISTOC1126	0.5 mg/L C from USP Sucrose	250ml
Shimadzu®	ISTOC1127	0.5 mg/L C from USP 1,4-Benzoquinone	250ml
Shimadzu®	ISTOC1128	USP System Suitability Kit; Reagent Water, 0.5 mg/L C from USP Sucrose and 0.5 mg/L C from USP 1,4-Benzoquinone. 250ml Bottles	Kit
Shimadzu®	ISTOC1139	USP System Suitability Kit; Reagent Water, 0.5 mg/L C from USP Sucrose and 0.5 mg/L C from USP 1,4-Benzoquinone. 500ml Bottles	Kit
Shimadzu®	ISTOC1140	USP Reagent Water	500ml
Shimadzu®	ISTOC1141	0.5 mg/L C from USP Sucrose	500ml
Shimadzu®	ISTOC1142	0.5 mg/L C from USP 1,4-Benzoquinone	500ml
Shimadzu®	ISTOC1153	USP System Suitability Kit; Reagent Water, 0.5 mg/L C from USP Sucrose and 0.5 mg/L C from USP 1,4-Benzoquinone. 1L Bottles	Kit
Shimadzu®	ISTOC1154	USP Reagent Water	1L
Shimadzu®	ISTOC1155	0.5 mg/L C from USP Sucrose	1L
Shimadzu®	ISTOC1156	0.5 mg/L C from USP 1,4-Benzoquinone	1L
Sievers® 400	ISTOC1011	25 µS/cm Conductivity Standard for Calibration	500ml
Sievers® 400	ISTOC1012	25 µS/cm Conductivity Standard for Calibration	250ml
Sievers® 400	ISTOC1013	25 µS/cm Conductivity Standard for Calibration	125ml
Sievers® 400	ISTOC1022	Calibration Blank	125ml
Sievers® 400	ISTOC1024	Calibration Blank	250ml
Sievers® 400	ISTOC1028	Calibration Blank	500ml
Sievers® 400	ISTOC1051	Calibration Standard 1.25 mg/L C NIST Sucrose	125ml
Sievers® 400	ISTOC1052	Calibration Standard 1.25 mg/L C NIST Sucrose	250ml
Sievers® 400	ISTOC1053	Calibration Standard 1.25 mg/L C NIST Sucrose	500ml
Sievers® 400	ISTOC1119	Reagent Water, 0.5 mg/L C from USP Sucrose and 0.5 mg/L C from USP 1,4-Benzoquinone. 125ml Bottles	Kit
Sievers® 400	ISTOC1133	Reagent Water, 0.5 mg/L C from USP Sucrose and 0.5 mg/L C from USP 1,4-Benzoquinone. 250ml Bottles	Kit
Sievers® 400	ISTOC1143	USP System Suitability Reagent; Water, 0.5 mg/L C USP Sucrose and 0.5 mg/L C USP 1,4-Benzoquinone. 500ml Bottles	Kit
Sievers® 400	ISTOC1157	USP System Suitability; Reagent Water ,0.500 mg/L C from USP Sucrose and 0.500 mg/L C from USP 1,4-Benzoquinone. 1L Bottles	Kit
Sievers® 400	ISTOC1159	Reagent Water, 0.5 mg/L C from USP Sucrose and 0.5 mg/L C from USP 1,4-Benzoquinone.1L Bottles	Kit
Sievers® 800	ISTOC1114	USP System Suitability Set, Reagent Water,0.5 mg/L C USP Sucrose and 0.5 mg/L C USP 1,4-Benzoquinone. 125ml Bottles	Kit
Sievers® 800	ISTOC1115	USP Reagent Water	125ml
Sievers® 800	ISTOC1116	0.5 mg/L C from USP Sucrose	125ml
Sievers® 800	ISTOC1117	0.5 mg/L C from USP 1,4-Benzoquinone	125ml
Sievers® 800	ISTOC1130	USP Reagent Water	250ml
Sievers® 800	ISTOC1131	0.5 mg/L C from USP Sucrose	250ml

Instrument	Product No.	Description	Pack size
Sievers® 800	ISTOC1132	0.5 mg/L C from USP 1,4-Benzoquinone	250ml
Sievers® 800	ISTOC1135	USP System Suitability Set, Reagent Water, 0.5 mg/L C USP Sucrose and 0.5 mg/L C USP 1,4-Benzoquinone. 500ml Bottles	Kit
Sievers® 800	ISTOC1136	USP Reagent Water	500ml
Sievers® 800	ISTOC1137	0.5 mg/L C from USP Sucrose	500ml
Sievers® 800	ISTOC1138	0.5 mg/L C from USP 1,4-Benzoquinone	500ml
Sievers® 800	ISTOC1149	USP System Suitability Set, Reagent Water, 0.5 mg/L C USP Sucrose and 0.5 mg/L C USP 1,4-Benzoquinone. 1L Bottles	Kit
Sievers® 800	ISTOC1150	USP Reagent Water	1L
Sievers® 800	ISTOC1151	0.5 mg/L C from USP Sucrose	1L
Sievers® 800	ISTOC1152	0.5 mg/L C from USP 1,4-Benzoquinone	1L
Sievers® 900	ISTOC1114	USP System Suitability Set, Reagent Water, 0.5 mg/L C USP Sucrose and 0.5 mg/L C USP 1,4-Benzoquinone. 125ml Bottles	Kit
Sievers® 900	ISTOC1115	USP Reagent Water	125ml
Sievers® 900	ISTOC1116	0.5 mg/L C from USP Sucrose	125ml
Sievers® 900	ISTOC1117	0.5 mg/L C from USP 1,4-Benzoquinone	125ml
Sievers® 900	ISTOC1129	USP System Suitability Set, Reagent Water, 0.5 mg/L C USP Sucrose and 0.5 mg/L C USP 1,4-Benzoquinone. 250ml Bottles	Kit
Sievers® 900	ISTOC1130	USP Reagent Water	250ml
Sievers® 900	ISTOC1131	0.5 mg/L C from USP Sucrose	250ml
Sievers® 900	ISTOC1132	0.5 mg/L C from USP 1,4-Benzoquinone	250ml
Sievers® 900	ISTOC1135	USP System Suitability Set, Reagent Water, 0.5 mg/L C USP Sucrose and 0.5 mg/L C USP 1,4-Benzoquinone. 500ml Bottles	Kit
Sievers® 900	ISTOC1136	USP Reagent Water	500ml
Sievers® 900	ISTOC1137	0.5 mg/L C from USP Sucrose	500ml
Sievers® 900	ISTOC1138	0.5 mg/L C from USP 1,4-Benzoquinone	500ml
Sievers® 900	ISTOC1149	USP System Suitability Set, Reagent Water, 0.5 mg/L C USP Sucrose and 0.5 mg/L C USP 1,4-Benzoquinone. 1L Bottles	Kit
Sievers® 900	ISTOC1150	USP Reagent Water	1L
Sievers® 900	ISTOC1151	0.5 mg/L C from USP Sucrose	1L
Sievers® 900	ISTOC1152	0.5 mg/L C from USP 1,4-Benzoquinone	1L
Swan Analytical®	ISTOC1026	Calibration Kit containing a Blank and 1ppm Sucrose Standard. 250ml Bottles	Kit
Swan Analytical®	ISTOC1133	Reagent Water, 0.5 mg/L C from USP Sucrose and 0.5 mg/L C from USP 1,4-Benzoquinone. 250ml Bottles	Kit
Teledyne Tekmar®	ISTOC1018	Individual TOC/TIC Calibration Blank	40ml
Teledyne Tekmar®	ISTOC1020	Individual TOC/TIC Calibration Blank	125ml
Teledyne Tekmar®	ISTOC1059	Calibration Standard 0.5 mg/L C NIST KHP	40ml
Teledyne Tekmar®	ISTOC1061	Calibration Standard 0.5 mg/L C NIST KHP	125ml
Teledyne Tekmar®	ISTOC1065	Calibration Standard 1mg/L NIST KHP	40ml
Teledyne Tekmar®	ISTOC1067	Calibration Standard 1mg/L NIST KHP	125ml
Teledyne Tekmar®	ISTOC1070	Calibration Standard 5mg/L NIST KHP	40ml
Teledyne Tekmar®	ISTOC1071	Calibration Standard 5mg/L NIST KHP	125ml
Teledyne Tekmar®	ISTOC1072	Calibration Standard 10mg/L NIST KHP	40ml
Teledyne Tekmar®	ISTOC1073	Calibration Standard 10mg/L NIST KHP	125ml
Teledyne Tekmar®	ISTOC1074	Calibration Standard 25mg/L NIST KHP	40ml
Teledyne Tekmar®	ISTOC1075	Calibration Standard 25mg/L NIST KHP	125ml
Teledyne Tekmar®	ISTOC1076	Calibration Standard 50 mg/L C NIST KHP	40ml
Teledyne Tekmar®	ISTOC1077	Calibration Standard 50 mg/L C NIST KHP	125ml
Teledyne Tekmar®	ISTOC1088	Ultra Low-Level TOC Kit; 3 x TOC Water Blanks, 9 TOC standards (0.05, 0.06, 0.07, 0.08, 0.09, 0.1, 0.25, 0.5 and 1 mg/L C from NIST KHP). 40ml Vials	Kit
Teledyne Tekmar®	ISTOC1104	System Suitability Set to JP; Reagent Water and 0.5 mg/L C from Sodium Dodecylbenzene Sulfonate. 40ml vials	Kit
Teledyne Tekmar®	ISTOC1106	JP Reagent Water	40ml
Teledyne Tekmar®	ISTOC1110	USP Reagent Water	40ml
Teledyne Tekmar®	ISTOC1110	USP Reagent Water	40ml
Teledyne Tekmar®	ISTOC1111	0.5 mg/L C from USP Sucrose	40ml
Teledyne Tekmar®	ISTOC1111	0.5 mg/L C from USP Sucrose	40ml
Teledyne Tekmar®	ISTOC1112	0.5 mg/L C from USP 1,4-Benzoquinone	40ml
Teledyne Tekmar®	ISTOC1112	0.5 mg/L C from USP 1,4-Benzoquinone	40ml
Teledyne Tekmar®	ISTOC1113	USP System Suitability Kit; Reagent Water, 0.5 mg/L C from USP Sucrose and 0.5 mg/L C from USP 1,4-Benzoquinone. 125ml Bottles	Kit
Teledyne Tekmar®	ISTOC1118	USP Reagent Water	125ml
Teledyne Tekmar®	ISTOC1120	0.5 mg/L C from USP Sucrose	125ml
Teledyne Tekmar®	ISTOC1121	0.5 mg/L C from USP 1,4-Benzoquinone	125ml

Instrument	Product No.	Description	Pack size
Teledyne Tekmar®	ISTOC1125	USP Reagent Water	250ml
Teledyne Tekmar®	ISTOC1126	0.5 mg/L C from USP Sucrose	250ml
Teledyne Tekmar®	ISTOC1127	0.5 mg/L C from USP 1,4-Benzoquinone	250ml
Teledyne Tekmar®	ISTOC1128	USP System Suitability Kit; Reagent Water, 0.5 mg/L C from USP Sucrose and 0.5 mg/L C from USP 1,4-Benzoquinone. 250ml Bottles	Kit
Teledyne Tekmar®	ISTOC1139	USP System Suitability Kit; Reagent Water, 0.5 mg/L C from USP Sucrose and 0.5 mg/L C from USP 1,4-Benzoquinone. 500ml Bottles	Kit
Teledyne Tekmar®	ISTOC1140	USP Reagent Water	500ml
Teledyne Tekmar®	ISTOC1141	0.5 mg/L C from USP Sucrose	500ml
Teledyne Tekmar®	ISTOC1142	0.5 mg/L C from USP 1,4-Benzoquinone	500ml
Teledyne Tekmar®	ISTOC1153	USP System Suitability Kit; Reagent Water, 0.5 mg/L C from USP Sucrose and 0.5 mg/L C from USP 1,4-Benzoquinone. 1L Bottles	Kit
Teledyne Tekmar®	ISTOC1154	USP Reagent Water	1L
Teledyne Tekmar®	ISTOC1155	0.5 mg/L C from USP Sucrose	1L
Teledyne Tekmar®	ISTOC1156	0.5 mg/L C from USP 1,4-Benzoquinone	1L
Thornton® 5000	ISTOC1047	Calibration Blank	500ml
Thornton® 5000	ISTOC1048	Calibration Standard 0.25 mg/L C NIST Sucrose	500ml
Thornton® 5000	ISTOC1049	Calibration Standard 0.5 mg/L C NIST Sucrose	500ml
Thornton® 5000	ISTOC1050	Calibration Kit; 2 x calibration blanks, 0.25 mg/L C Sucrose and 0.5mg/L Sucrose. 500ml Bottles	Kit
Thornton® 5000	ISTOC1053	Calibration Standard 1.25 mg/L C NIST Sucrose	500ml
Thornton® 5000	ISTOC1144	USP Reagent Water	500ml
Thornton® 5000	ISTOC1145	0.5 mg/L C from USP Sucrose	500ml
Thornton® 5000	ISTOC1146	0.5 mg/L C from USP 1,4-Benzoquinone	500ml
Thornton® 5000	ISTOC1148	USP System Suitability Kit; 2 x Blanks , 0.5 mg/L C from USP Sucrose and 0.5 mg/L C from USP 1,4-Benzoquinone. 500ml Bottles	Kit



pH Buffers Solutions

Guaranteed Traceability

Reagecon's pH buffer standards are directly traceable to the IUPAC pH scale by an unbroken chain of traceability. Reagecon achieve this traceability through a series of comparisons, with the key reference materials being Standard Reference Materials (SRMs) manufactured by NIST.

For proof of traceability, all of these comparisons must be made in a technically - valid manner and the accuracy of each step must be quantified by calculating the associated Uncertainty of Measurement. Reagecon's pH buffer standards meet the ISO definition of traceability: "The ability to relate measurements back to a stated reference (usually an international standard) through an unbroken chain of comparisons, each having stated uncertainties of measurement." Reagecon's traceability claims are guaranteed by our accreditation to ISO 17025.

Why use traceable pH buffers?

Your pH measurements can only be as good as the pH buffers that you use. If your pH calibration is made using traceable pH buffers then you have a direct link to the International pH scale for your measurements. Without this link, you are not entitled to report your measurements in pH units so the number displayed on your pH meter is just that - a number and is not a pH value. The common link that is achieved by traceability allows **comparability** of results regardless of:

- When the measurements were made
- Where the measurements were made
- What instrumentation was used to make the measurements

Traceable analysis is necessary for consistency and universal acceptance of your pH results - including acceptance by regulatory bodies.

Fully Accredited

In addition to the certification to ISO9001:2008, Reagecon's pH analysis is also accredited to ISO 17025 - "General requirements for the competence of testing and calibration laboratories". Reagecon's accreditation to ISO17025 gives independent proof of three key areas:

- Our pH analysis is technically valid and is carried out in a thoroughly controlled manner by highly - qualified staff.
- Our claims over the accuracy of our pH analysis are valid and we have properly quantified our accuracy in our Uncertainty of Measurement calculations.
- Our pH analysis is traceable to NIST SRMs. It is important to note that NIST do not police claims of traceability to their SRMs. Any manufacturer of pH buffers can claim that their buffers are traceable to NIST, but only manufacturers that are accredited to ISO17025 have independent proof of their traceability.

Reagecon's accreditation is indicated by the Irish National Accreditation Board (INAB) logo on our Certificates of Analysis for pH Buffers. Accreditation by INAB and all other accreditation boards validated to accredit ISO 17025 are mutually recognised as being directly equivalent.

Why take chances with your pH buffer supplier's traceability? By using buffers from a manufacturer that holds ISO17025 accreditation you have a guarantee of traceability.

Stability

Reagecon's pH buffers have been specially formulated to ensure their stability. The packaging bottles that we use have also been selected and tested to provide maximum stability. We have conducted stability trials on both freshly-opened and part-full bottles of our pH buffers to validate their shelf-life - an example is given in Figure 2. This demonstrates that Reagecon's pH buffers will stay within their specification limits up to the stated expiry date regardless of when the bottle was first opened (provided that the pH buffer is stored in accordance with good laboratory practice). Most of Reagecon's pH buffers have an expiry date of either 2 years or 3 years from the date of manufacture.

This means that our pH buffers' expiry dates are an absolute value and they have a long "Active Life". We do not quote a short usage period after opening the bottle and there is no need to record by hand an "Opened on date" and a "Use by date". With Reagecon's pH buffers you just open the bottle and use the contents - with other manufacturers' pH buffers you need to record these extra dates and may need to dispose of most of the contents of the bottle at the end of its short "Active Life".

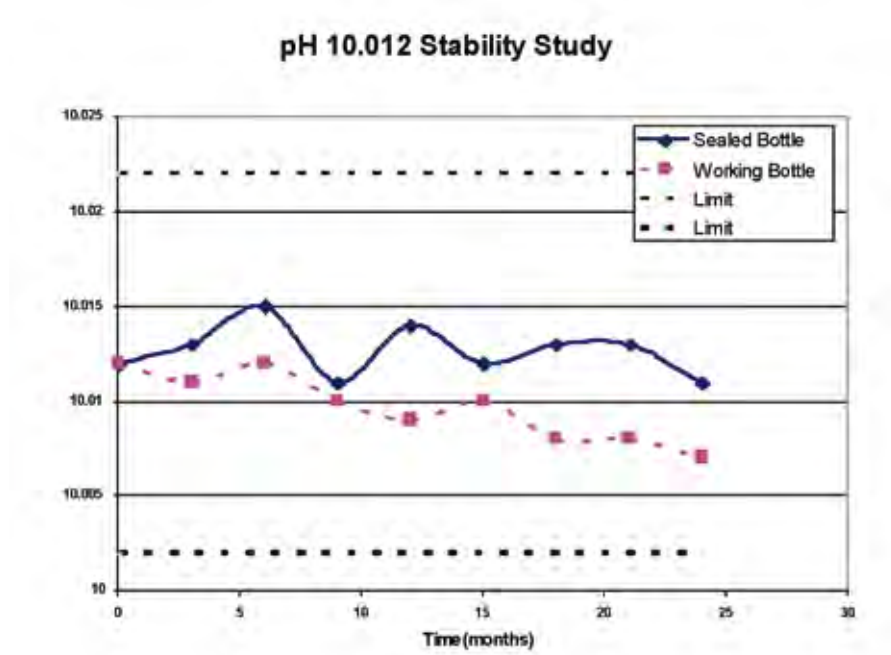


Figure 2: Stability Data for Reagecon pH 10.012 @ 25°C

Packaging Options

Besides regular bottles, Reagecon offer pH buffers in a wide variety of convenient packaging options:

- **Twin-neck bottles.** These bottles are ideal for use with portable pH meters. Their integral calibration chamber prevents contamination and removes the need to carry a separate measuring container or to decant buffers for use in the field.
- **Bag-in-Box containers.** This packaging consists of a cardboard box with a collapsible plastic liner. This offers a space-saving alternative to bottles and reduces the amount of packaging waste for disposal. Every Bag-in-Box container is supplied with a tap to allow the contents to be easily dispensed.
- **Capsules.** The presentation of pH buffers in capsule format is an innovative concept developed by Reagecon, and offers several advantages
- **RECAL Buffers.** RECAL is a range of pH Buffers in a wide mouth disposable container which can be used for direct calibration of the electrode and then discarded on completion.

Extensive Range of pH values

Reagecon manufacture the most comprehensive range of pH reagents in the world; these are designed to suit all end user requirements. These include laboratory grade buffers, the Professional Range (buffer standards as per N.I.S.T/DIN and high resolution buffers), low ionic strength buffers and pH buffer capsules. We are delighted to add several new offerings that include buffers to calibrate Antimony electrodes, Sterile Buffers and colour coded pH buffers with a three decimal place specification. All are manufactured to exacting specifications with an extended shelf life and cover the pH range of pH 1.00 to pH 13.00 inclusive. All are supplied with a detailed Certificate of Analysis which outlines traceability to N.I.S.T (the N.I.S.T SRM(s) Lot No. is stated on the certificate). Temperature dependence data is printed on the label as are lot numbers and expiry dates.

Calibration Buffers

Reagecon pH Buffers are pre-programmed into the instruments of most major manufacturers.

Control Buffers

For increased confidence in their test measurements, analysts should regularly measure the pH of a Control Standard. If an acceptable value is obtained from the Control Standard measurement then the analysts, can have improved confidence that their test measurements will be correct. Reagecon's extensive range of pH buffers means that there will be a Reagecon pH buffer which can be used as a control buffer for all pH applications.

pH Buffers - 20°C

Clear, Colourless pH Buffer Solutions. Tested at 20°C and certified by Reagecon's ISO 17025 Accredited Test Method. NIST traceable and presented in various pack sizes.

Description	Product No. 500ml	Product No. 1L	Product No. 5L
Buffer Solution pH 1.00 ± 0.02 @ 20°C	10105	1010	5010
Buffer Solution pH 2.00 ± 0.02 @ 20°C	10205	1020	5020
Buffer Solution pH 3.00 ± 0.02 @ 20°C	10305	1030	5030
Buffer Solution pH 4.00 ± 0.01 @ 20°C	10405	1040	5040
Buffer Solution pH 4.00 ± 0.01 @ 20°C (Phthalate free)	CC10405	CC1040	CC5040
Buffer Solution pH 5.00 ± 0.01 @ 20°C	10505	1050	5050
Buffer Solution pH 6.00 ± 0.01 @ 20°C	10605	1060	5060
Buffer Solution pH 6.80 ± 0.01 @ 20°C	10685	1068	5068
Buffer Solution pH 7.00 ± 0.01 @ 20°C	10705	1070	5070
Buffer Solution pH 8.00 ± 0.01 @ 20°C	10805	1080	5080
Buffer Solution pH 9.00 ± 0.01 @ 20°C	10905	1090	5090
Buffer Solution pH 10.00 ± 0.01 @ 20°C	11005	1100	5100
Buffer Solution pH 11.00 ± 0.05 @ 20°C	11105	1110	5110
Buffer Solution pH 12.00 ± 0.05 @ 20°C	11205	1120	5120
Buffer Solution pH 13.00 ± 0.05 @ 20°C	11305	1130	5130

pH Buffers - 25°C

Clear, Colourless pH Buffer Solutions. Tested at 25°C and certified by Reagecon's ISO 17025 Accredited Test Method. NIST traceable and presented in various pack sizes.

Description	Product No. 500ml	Product No. 1L	Product No. 5L
Buffer Solution pH 1.00 ±0.02 @25°C	1010525	101025	501025
Buffer Solution pH 2.00 ±0.02 @25°C	1020525	102025	502025
Buffer Solution pH 3.00 ±0.02 @25°C	1030525	103025	503025
Buffer Solution pH 4.00 ±0.01 @25°C	1040525	104025	504025
Buffer Solution pH 4.00 ±0.01 @25°C (Phthalate Free)	CC1040525	CC104025	CC504025
Buffer Solution pH 5.00 ±0.01 @25°C	1050525	105025	505025
Buffer Solution pH 6.00 ±0.01 @25°C	1060525	106025	506025
Buffer Solution pH 6.80 ±0.01 @25°C	1068525	106825	506825
Buffer Solution pH 7.00 ±0.01 @25°C	1070525	107025	507025
Buffer Solution pH 8.00 ±0.01 @25°C	1080525	108025	508025
Buffer Solution pH 9.00 ±0.01 @25°C	1090525	109025	509025
Buffer Solution pH 10.00 ±0.01 @25°C	1100525	110025	510025
Buffer Solution pH 11.00 ±0.05 @25°C	1110525	111025	511025
Buffer Solution pH 12.00 ±0.05 @25°C	1120525	112025	512025
Buffer Solution pH 13.00 ±0.05 @25°C	1130525	113025	513025

Colour Coded Buffers

Coloured pH Buffer Solutions. Tested at 20°C and certified by Reagecon's ISO 17025 Accredited Test Method. NIST traceable and presented in various pack sizes.

Description	Product No. 500ml	Product No. 1L	Product No. 5L
Buffer Solution pH 4.00 (Red) ±0.01 @ 20°C	10405C	1040C	5040C
Buffer Solution pH 7.00 (Yellow) ±0.01 @ 20°C	10705C	1070C	5070C
Buffer Solution pH 10.00 (Blue) ±0.01 @ 20°C	11005C	1100C	5100C

Coloured pH Buffer Solutions. Tested at 25°C and certified by Reagecon's ISO 17025 Accredited Test Method. NIST traceable and presented in various pack sizes.

Description	Product No. 500ml	Product No. 1L	Product No. 5L
Buffer Solution pH 4.00 (Red) ±0.01 @25°C	1040525C	104025C	504025C
Buffer Solution pH 7.00 (Yellow) ±0.01 @25°C	1070525C	107025C	507025C
Buffer Solution pH 10.00 (Blue) ±0.01 @25°C	1100525C	110025C	510025C

Twin Neck Bottle Format

pH Buffers are available in an attractive and innovative twin neck bottle. The main advantages of this packaging are:

- No possibility of contamination
- No need for separate measuring container for use in the calibration of the Electrode
- Correct quantity of buffer required for calibration is dispensed into the calibrating chamber giving rise to no waste
- Ideally suited for field work
- Easy to carry
- 250ml, 500ml and 1L sizes available



Coloured pH Buffer solutions in Twin-neck containers with integrated calibrating chamber. Tested at 20°C and certified by Reagecon's ISO 17025 Accredited Test Method. NIST traceable and presented in various pack sizes.

Description	Product No. 500ml	Product No. 1L	Product No. 5L
Buffer Solution pH 4.00 (Red) ± 0.01 @ 20°C	10402CTT	10405CTT	1040CTT
Buffer Solution pH 7.00 (Yellow) ± 0.01 @ 20°C	10702CTT	10705CTT	1070CTT
Buffer Solution pH 10.00 (Blue) ± 0.01 @ 20°C	11002CTT	11005CTT	1100CTT

Coloured pH Buffer solutions in Twin-neck containers with integrated calibrating chamber. Tested at 25°C and certified by Reagecon's ISO 17025 Accredited Test Method. NIST traceable and presented in various pack sizes.

Description	Product No. 500ml	Product No. 1L	Product No. 5L
Buffer Solution pH 4.00 (Red) ± 0.01 @25°C	1040225CTT	1040525CTT	104025CTT
Buffer Solution pH 7.00 (Yellow) ± 0.01 @25°C	1070225CTT	1070525CTT	107025CTT
Buffer Solution pH 10.00 (Blue) ± 0.01 @25°C	1100225CTT	1100525CTT	110025CTT

pH Buffer Standards NIST values @ 20°C

Clear, Colourless NIST Value pH Buffer Solutions. Tested at 20°C and certified by Reagecon's ISO 17025 Accredited Test Method. NIST traceable and presented in 500ml bottles. Other pack sizes available upon request.

Product No.	Description	Pack Size
101675	Buffer Solution pH 1.675 @ 20°C	500ml
101677	Buffer Solution pH 1.677 @ 20°C	500ml
103788	Buffer Solution pH 3.788 @ 20°C	500ml
104001	Buffer Solution pH 4.001 @ 20°C	500ml
106881	Buffer Solution pH 6.881 @ 20°C	500ml
107429	Buffer Solution pH 7.429 @ 20°C	500ml
109225	Buffer Solution pH 9.225 @ 20°C	500ml
110062	Buffer Solution pH 10.062 @ 20°C	500ml
112627	Buffer Solution pH 12.627 @ 20°C	500ml

pH Buffer Standards DIN 19266 values @ 25°C

Clear, Colourless DIN Value pH Buffer Solutions. *Tested at 25°C and certified by Reagecon's ISO 17025 Accredited Test Method. NIST traceable and presented in 500ml bottles. Other pack sizes available upon request.*

Product No.	Description	Pack Size
101679	Buffer Solution pH 1.679 @25°C	500ml
103776	Buffer Solution pH 3.776 @25°C	500ml
104005	Buffer Solution pH 4.005 @25°C	500ml
10687	Buffer Solution pH 6.865 @25°C	500ml
107413	Buffer Solution pH 7.413 @25°C	500ml
109180	Buffer Solution pH 9.18 @25°C	500ml
110012	Buffer Solution pH 10.012 @25°C	500ml
112454	Buffer Solution pH 12.454 @25°C	500ml

High Resolution Buffers colour coded @ 25°C

Coloured High Resolution pH Buffer solutions. *Tested at 20°C or 25°C and certified by Reagecon's ISO 17025 Accredited Test Method. NIST traceable and presented in 500ml bottles. Other pack sizes available upon request.*

Product No.	Description	Pack Size
104000C	Buffer Solution pH 4.000 (Red) ± 0.010 @ 20°C	500ml
107000C	Buffer Solution pH 7.000 (Yellow) ± 0.010 @ 20°C	500ml
110000C	Buffer Solution pH 10.000 (Blue) ± 0.010 @ 20°C	500ml
H40525C	Buffer Solution pH 4.000 (Red) ± 0.010 @25°C	500ml
H70525C	Buffer Solution pH 7.000 (Yellow) ± 0.010 @25°C	500ml
H100525C	Buffer Solution pH 10.000 (Blue) ± 0.010 @25°C	500ml

Technical pH Buffer solutions @ 25°C

Coloured Technical pH Buffer solutions. *Tested at 25°C and certified by Reagecon's ISO 17025 Accredited Test Method. NIST traceable and presented in various pack sizes.*

Description	Product No. 250ml	Product No. 500ml	Product No. 1L
Technical Buffer Solution pH 2.00 ± 0.02 @ 25°C, (Coloured)	TB2002	TB200	TB2001
Technical Buffer Solution pH 4.01 ± 0.02 @ 25°C, (Coloured)	TB4012	TB401	TB4011
Technical Buffer Solution pH 4.60 ± 0.02 @ 25°C, (Coloured)	TB4602	TB460	TB46001
Technical Buffer Solution pH 7.00 ± 0.02 @ 25°C, (Coloured)	TB7002	TB700	TB7001
Technical Buffer Solution pH 9.21 ± 0.02 @ 25°C, (Coloured)	TB9212	TB921	TB9211
Technical Buffer Solution pH 10.00 ± 0.02 @25°C, (Coloured)	TB1002	TB100	TB1001

Low Ionic Strength Buffers

Low Ionic Strength pH Buffer Solutions. Special buffers suitable for accurate measurement of low ionic strength samples. *Tested at 20°C and certified by Reagecon's ISO 17025 Accredited Test Method. NIST traceable and presented in various pack sizes.*

Description	Product No. 500ml	Product No. 5L
Buffer Solution pH 4.10 ±0.04	LS41	LS415
Buffer Solution pH 6.96 ±0.04	LS69	LS695

“Bag In Box” - colour coded

Coloured, Bag in Box pH Buffer solutions supplied in cubitainers with tap. Tested at 20°C and certified by Reagecon's ISO 17025 Accredited Test Method. NIST traceable and presented in various pack sizes.

Description	Product No. 500ml	Product No. 5L
Buffer Solution pH 4.00 (Red) ±0.01 @ 20°C	BPH01	BPH02
Buffer Solution pH 7.00 (Yellow) ±0.01 @ 20°C	BPH03	BPH04
Buffer Solution pH 10.00 (Blue) ±0.01 @ 20°C	BPH05	BPH06

Coloured, Bag in Box pH Buffer solutions supplied in cubitainers with tap. Tested at 25°C and certified by Reagecon's ISO 17025 Accredited Test Method. NIST traceable and presented in various pack sizes.

Description	Product No. 500ml	Product No. 5L
Buffer Solution pH 4.00 (Red) ±0.01 @25°C	BPH07	BPH08
Buffer Solution pH 7.00 (Yellow) ±0.01 @25°C	BPH09	BPH 10
Buffer Solution pH 10.00 (Blue) ±0.01 @25°C	BPH 11	BPH 12

pH Buffer Capsules

The presentation of pH buffers in capsule format is an innovative concept developed by Reagecon. Tested at 25°C, NIST Traceable. These capsules offer the following advantages:

- Colour coded for ease of identification
- Dissolve quickly
- Preservative free
- Easy to store and transport
- Easy to use
- Accuracy ±0.02 pH units
- Economical
- Extended shelf life

To use: Empty contents of one capsule into 100ml of distilled water.

Description	pk50 Capsules
Buffer Capsule pH 4.00 (Red) ±0.02 @25°C	CP1040
Buffer Capsule pH 7.00 (Green) ±0.02 @25°C	CP1070
Buffer Capsule pH 9.00 (Purple) ±0.02 @25°C	CP1090
Buffer Capsule pH 10.00 (Blue) ±0.02 @25°C	CP1100
Buffer Mixed Pack 10 x pH 4.01, 20 x pH 7.00, 10 x pH 9.00, 10 x pH 10.00 ±0.02 @25°C	CPMX47910

RECAL - Single use Calibration Buffers (Colour Coded)

RECAL is a range of pH Buffers in a wide mouth disposable container which can be used for direct calibration of the electrode and then discarded after use. RECAL offers the following advantages:

- Tested and Certified by Reagecon's ISO 17025 Accredited Test Method.
- Convenience - saves time, more efficient calibration, avoids waste and spillage.
- Mobility - These are easy to store and transport, allowing calibration in the field or directly in the plant.
- Economical - No waste buffer, beaker not required.
- Accuracy - the possibility of contamination is eliminated giving increased confidence in the results.
- Traceability - Each container is labelled with lot number and expiry date and buffers are directly traceable to N.I.S.T. Standards.

Product No.	Description	Pack Size
04C60	Buffer Solution pH 4.00 (Red) ± 0.01 @ 20°C	6 x 90ml
07C60	Buffer Solution pH 7.00 (Yellow) ± 0.01 @ 20°C	6 x 90ml
10C60	Buffer Solution pH 10.00 (Blue) ± 0.01 @ 20°C	6 x 90ml
MXC60	Buffer Solution Mixed pack of 2x pH 4, 7 & 10 ± 0.01 @ 20°C	6 x 90ml
04C65	Buffer Solution pH 4.00 (Red) ± 0.01 @ 25°C	6 x 90ml
07C65	Buffer Solution pH 7.00 (Yellow) ± 0.01 @ 25°C	6 x 90ml
10C65	Buffer Solution pH 10.00 (Blue) ± 0.01 @ 25°C	6 x 90ml
MXC65	Buffer Solution Mixed pack of 2x pH 4, 7 & 10 ± 0.01 @ 25°C	6 x 90ml

Antimony Buffers

Antimony pH Buffer Solutions for use with Antimony or equivalent electrodes.

Description	Product No. 250ml	Product No. 500ml
Buffer Standard pH 1.07 ± 0.05 @ 25°C - Colourless	10725025	10725050
Buffer Standard pH 4.00 ± 0.05 @ 25°C - Light Red	401025P	40102550
Buffer Standard pH 7.01 ± 0.05 @ 25°C - Yellow	70125025	70125050

Sterile Buffers

pH Buffer Solutions sterilised by gamma irradiation.

Product No.	Description	Pack Size
104005S	pH Buffer Solution pH 4.00 ± 0.01 @ 20°C Sterile	500ml
106005S	pH Buffer Solution pH 6.00 ± 0.01 @ 20°C Sterile	500ml
107005S	pH Buffer Solution pH 7.00 ± 0.01 @ 20°C Sterile	500ml
108005S	pH Buffer Solution pH 8.00 ± 0.01 @ 20°C Sterile	500ml

Electrode Care & Maintenance



Introduction

pH is one of the most frequently and universally made measurements in science. Despite the number of people involved in pH measurement, the practical fundamentals governing it are not widely understood. The literature sometimes offers conflicting advice on how it is best measured and there is often uncertainty about the correct option available to deal with individual measurement applications. What is often not fully appreciated is that the vast majority of pH problems are related to the correct selection, care or maintenance of the electrode with particular emphasis on the reference electrode.

This brief technical note deals specifically with the correct choice of reference electrode filling solution and the compatibility of the filling solution with the sample being measured. It is important to keep two key considerations in mind as part of the selection process of the electrode filling solution. Firstly, the issue of the compatibility between the filling solution and the sample relates not only to direct pH measurement but also direct Ion and Redox measurement. It is also relevant to the use of all three sensors when performing potentiometric titrations. Secondly, the direct experience of the analyst, the operating instructions of the electrode or the detail contained within the test method being followed, may be of most value in the selection of the correct filling solution.

Correct choice of Electrode Filling Solution (Electrolyte)

A good electrolyte must fulfil a number of conditions. The equitransference of the cation/anion combination should be as close as possible to being equimobile, have constant chloride activity, be of high electrical conductance and as non-chemically reactive as possible.

Concentrated or saturated Potassium Chloride (KCl) fulfils all of these conditions to a greater or lesser extent and is the filling solution of choice in either potentiometric titrations or direct pH, redox or ion measurements where silver/silver chloride or calomel reference electrodes are used.

However, saturated KCl is only sparingly soluble below 20°C, so if the measurements are carried out below this temperature weaker concentrations of this salt needs to be used. By way of example, 3.5M KCl remains in solution down to 15°C and 2M KCl will remain in solution down to -5°C. However, the lower the concentration of KCl the higher the liquid junction potential error that will arise in the measurement. For work at very low temperatures, 1.5M KCl dissolved in equal volumes of water and glycerin can be used. (KCl does not crystalize out of solution in this mixture until the temperature reaches -30°C). This mixture will introduce even greater liquid junction errors.

The use of KCl in any concentration may be problematic in the following situations:

- 1** The following ions can react with Cl^- to form insoluble precipitates that block the diaphragm. Hg^{++} , Cu^{++} , Ag^+ , Pb^{++}
In such cases, a double junction electrode must be used with the outer chamber containing either Potassium Nitrate or Ammonium Sulphate at various concentrations. However, the potassium may also react with anions like Perchlorate (ClO_4^-) to form Potassium Perchlorate (KClO_4) which is sparingly soluble. In this situation Ammonium Sulfate can also be used as the filling solution in the outer chamber.
- 2** Some electrode manufacturers recommend the use of 3M KCl or 4M KCl saturated with Silver Chloride (AgCl) as the filling solution of choice. In this instance silver may react with several halides including bromides or iodides or may react with cyanides. Most importantly, silver may also react with sulfide which manifests itself in blackening of the diaphragm due to blockage. There may also be ingress of the sulfide into the electrode which will cause poisoning of the reference system, as well as high false liquid junction potentials. In this instance, silver free KCl can be used either as a primary electrolyte or in the outer junction of a double junction electrode.

- 3 2M Potassium Nitrate (KNO_3) + 0.001M Potassium Chloride may be used specifically for measurement of samples containing silver halides or used for argentimetric titrations where silver billet electrodes are used.
- 4 For pH measurement or titration in non-aqueous media or organic solvents, Lithium Chloride in Ethanol, Methanol, Isopropanol or Glacial Acetic Acid must be used as a filling solution in both the inner and outer chamber.

These hints are for guidance purposes but will help in the majority of applications. However, such hints can never be exhaustive or sufficiently comprehensive to cover all types of samples encountered.



Electrode Filling Solutions

Product No	Description	Pack Size
EFS3	3M Potassium chloride (KCl), free from Silver ion	100ml
EFS35	3M Potassium chloride (KCl), free from Silver ion	500ml
EFS351	3.5M (KCl) free from Silver ion	100ml
EFS4	4M Potassium chloride (KCl), free from Silver ion	100ml
EFS381	3.8M Potassium chloride (KCl), free from Silver ion	100ml
LKCL	Saturated Potassium (KCl), free from Silver ion	100ml
EFS3AC	3M Potassium chloride (KCl), saturated with AgCl	100ml
EFS3AC5	3M Potassium chloride (KCl), saturated with AgCl	500ml
EFS4AC	4M Potassium chloride (KCl), saturated with AgCl	100ml
EFSPS	Saturated Potassium Sulphate (K_2SO_4)	100ml
EFS2AS	Double junction bridge sol; 2M Ammonium sulphate ($(\text{NH}_4)_2\text{SO}_4$)	100ml
EFSAMO1	Ammonia solution	100ml
EFS01AS	0.1M Ammonium Sulphate ($(\text{NH}_4)_2\text{SO}_4$)	100ml
EFSKNO	Double junction bridge solution 10% w/v Potassium Nitrate (KNO_3)	100ml
EFSLICL	Non-aqueous filling solution; 1M Lithium chloride (LiCl), dissolved in Isopropanol	100ml
EFSLIET	Non-aqueous filling solution; 1M Lithium chloride (LiCl), dissolved in ethanol	100ml
EFSLIGA	Non-aqueous filling solution; 1M Lithium chloride (LiCl), dissolved in glacial acetic acid	100ml
EFSDO	Dissolved Oxygen Electrolyte	100ml

Electrode Cleaning Solutions

Designed to extend the useful life of your PH electrode.

Product No	Description	Pack Size
ECS	Electrode cleaning solution (Pepsin/hydrochloric acid) for removal of proteins	500ml
IECS5	Inorganic Electrode Cleaning Solution (Thiourea/hydrochloric acid); for removal of sulphide	500ml
OECS	Organic Electrode Cleaning Solution	500ml
ERS	Electrode Regeneration Solution	100ml
ECRS	Electrode Cleaning Solution, Oxidation Reduction Potential (ORP) Measurement in Clean Water (APHA)	500ml
ECHPS	Rinse Solution, High Purity Water for Rinsing Electrodes and other Laboratory Instruments	500ml

Electrode Storage Solutions

Product No	Description	Pack Size
ESS5	pH Electrode Storage Solution	500ml
ESS01	pH Electrode Storage Solution	1L

Electrode Care & Maintenance Kit

This is a unique Kit designed to help calibrate, clean and extend the useful life of your pH electrodes.

Contents include:

- pH buffers in twin neck bottles - 1 x 500ml each of pH 4.00/7.00/10.00 @ 20°C
- Electrode Storage Solution - 1 x 500ml
- Electrode Cleaning Solution - 1 x 100ml each of Biological, Organic and Inorganic Solutions
- Filling Solution 1 x 100ml each of 3M KCl/AgCl and 4M KCl
- Pipettes (2)
- Regeneration Solution - 1 x 100ml
- Instruction card and GLP Log Book

Product No	Description	Pack Size
RCMK1PH	REAGECARE pH Electrode Care & Maintenance Kit	Kit

Ion Selective Electrode Standards & Ionic Strength Adjustors



Introduction

Ion Selective Electrodes, (ISEs) allow specific and quantitative measurement of a wide range of cations, anions and some dissolved gases. These ions can be measured directly like pH measurement, indirectly (see below) or by titrimetry. ISEs respond selectively to the relevant ion activity exactly like pH electrodes respond to hydrogen ion activity. Like pH electrodes, they require a suitable reference electrode, preferably a double junction system. They also require a pH or ion meter and a selection of filling solutions for the outer and inner chambers of the reference electrode. In some instances the reference and sensing electrodes may be combined into one unit.

Types of Measurement

Direct measurement is performed exactly like the measurement of pH. The electrode is calibrated using two concentrations of the relevant standard which are chosen to bracket the expected value of the sample. More than two calibration standards may be used for better linearity or more accurate measurement and a standard curve of mV reading versus concentration of various standards can be constructed.

However, the measurement technique deviates from pH in that both sample and standards require the addition of an Ionic Strength Adjustor (ISA). The addition of this solution confers the following benefits:

- The ionic strength of the adjustor is much higher than the ionic strength of the sample or standard so it keeps the ionic strength of both high, constant and similar and thus enables what is effectively activity measurement to be read as concentration.
- The ionic strength adjustor (which should never react with the sample or standard chemically) also keeps the pH value constant in some instances. This combined with high ionic strength and the chemistry of the ISA suppresses or eliminates interfering ions.
- The ISA when added to sample and standard eliminates any matrix, hysteresis or erroneous liquid junction potentials that might affect the accuracy of the test result.

Indirect measurement methodologies include the use of standard addition, sample addition, standard subtraction and sample subtraction. Such methods offer advantages that include:

- Calibration need only be performed occasionally or not at all, therefore only ISA needs to be added to the sample.
- The possibility of error due to a temperature co-efficient of variation between the sample and standard is largely eliminated.
- The ion concentration of solid samples can be measured.
- The range of types of ions measured and the versatility of the technique is greatly enhanced by careful and considered selection of the optimal indirect method. This is true, in particular, with standard or sample subtraction, where precipitation or complexation may be performed, or where the counter ion to that contained in the standard is measured.

Use of Controls

As with all analytical measurements, no test should be performed without the use of control material. The control should be treated in exactly the same way as the sample including the addition of ISA, thereby picking up any error in the measurement technique, whether it be due to the analyst, environment, meter, sensors or sample in line with the execution of good laboratory produce. Reagecons ISE standards, diluted to a suitable concentration, are particularly suitable for use as control material.

ISE Standards & ISA Solutions

Reagecon is world leader in the development, manufacture, testing and stabilising of chemical and physical standards and reagents. Our ISE standards and ISA's are an important part of our offering. The range of standards is extensive, accurate, traceable and produced to have minimal uncertainty of measurement. They can be used for:

- Calibration
- Control
- Instrument Qualification
- Method Validation

Both ISE standards or ISA reagents can be customised for individual customer requirements and can be supplied in bulk quantities for process or online applications.

Ion Selective Electrode Standards

Product No.	Description	Pack Size
ISEF10005	Fluoride STD 100ppm	500ml
ISEF1005	Fluoride STD 10ppm	500ml
ISENH55	Ammonia 1,000ppm as N	5L
ISENH1005	Ammonia 100ppm as N	500ml
ISEF101	Fluoride 10ppm	1L
ISEF11	Fluoride 1ppm	1L
ISENH4105	Ammonium 10ppm as NH ₄	500ml
ISENH5	Ammonia 1,000ppm as N	500ml
ISENH45	Ammonium 1,000ppm as NH ₄	500ml
ISEBA5	Barium 1,000ppm	500ml
ISEBR5	Bromide 1,000ppm	500ml
ISECD5	Cadmium 1,000ppm	500ml
ISECA5	Calcium 1,000ppm	500ml
ISECO5	Carbon Dioxide 1,000ppm	500ml
ISECL5	Chloride 1,000ppm	500ml
ISECU5	Copper 1,000ppm	500ml
ISECN5	Cyanide 1,000ppm	500ml
ISEF5	Fluoride 1,000ppm	500ml
ISEI5	Iodide 1,000ppm	500ml
ISEPB5	Lead 1,000ppm	500ml
ISEN5	Nitrate 1,000ppm as NO ₃	500ml
ISENO5	Nitrogen Oxide 1,000ppm as NO ₂	500ml
ISEK5	Potassium 1,000ppm	500ml
ISEAG5	Silver 1,000ppm	500ml
ISENA5	Sodium 1,000ppm	500ml
ISES5	Sulphide 1,000ppm	500ml
ISESCO5	Sulphur Dioxide 1,000ppm	500ml
ISESC5	Thiocyanate 1,000ppm	500ml

Ionic Strength Adjuster Solutions

Product No.	Description	Pack Size
ISANH5	Ammonia ISA 10M NaOH	500ml
ISANH45	Ammonium ISA 4M LiCl	500ml
ISABA5	Barium ISA 4M LiCl	500ml
ISABR5	Bromide ISA 5M NaNO ₃	500ml
ISACD5	Cadmium ISA 5M NaNO ₃	500ml
ISACA5	Calcium ISA 4M KCl	500ml
ISACL5	Chloride ISA 5M NaNO ₃	500ml
ISACU5	Copper ISA 5M NaNO ₃	500ml
ISACN5	Cyanide ISA 10M NaOH	500ml
TISAF5	Fluoride TISAB3	500ml
TISAF55	Fluoride TISAB3 (Bag in Box)	5L
ISAI5	Iodide ISA 5M NaNO ₃	500ml
ISAPB5	Lead ISA 2.5M NaNO ₃	500ml
ISAN5	Nitrate ISA 2M (NH ₄) ₂ SO ₄	500ml
ISAK5	Potassium ISA 5M NaCl	500ml
ISAAG5	Silver ISA 5M NaNO ₃	500ml
ISANA5	Sodium Based Standard	500ml
ISAS5	Sulphide ISA 10M NaOH	500ml
ISASO5	Sulphur Dioxide ISA 2M H ₂ SO ₄	500ml
ISASC5	Thiocyanate ISA 5M NaNO ₃	500ml

Redox Standards



Summary of Features & Benefits:

- Widest range of values and pack options available in the market
- Extensive technical advice on the measurement techniques available
- Enquiries for customized or bulk options welcome
- All products certified with proven verifiable accuracy and uncertainty of measurement
- Very high specifications ($\pm 5\text{mV}$)
- Detailed Safety Data Sheets available online

During its working life a Redox electrode undergoes no change of zero point or slope. Redox is an absolute measurement expressed in millivolts (unlike pH, which is an artificial logarithmic scale using values of 1 - 14). Therefore, redox electrodes do not require calibration and the standards act as control materials rather than calibration standards. Such control standards not only control the functionality of the sensing and reference electrode, but also control the analyst's technique, environmental conditions and the operation of the measurement meter (pH meter in millivolt mode).

If the measurement of the control material is outside the expected values, it may be due to any or several of the following reasons:

- Poor connections or a short circuit within the electrodes or between the electrodes and meter.
- Incompatibility between the reference electrode and sample, in particular the use of incorrect electrolyte.
- Contamination or poisoning of reference system or reference electrolyte.
- Blocked or contaminated diaphragm.
- Incorrect choice of sensing electrode.

In choosing an electrode, broadly, but not exclusively the analyst can choose between platinum or gold and choose several different options as to how the platinum or gold is configured on the electrode.

Although, platinum is more commonly used, it may give erroneous results in low ionic strength solutions or, when its surface is passivated or roughened. It may also show poor results in strongly oxidizing solutions. On the other hand gold is totally unsuitable in the presence of or due to the formation of gold cyanide or gold halide complexes in the sample. Although substantial guidance is offered in the literature on which metal to use, the specific experience of the user, is the most important determinant of the final choice.

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

Turbidity Standards



Summary of Features & Benefits:

- Non toxic and non carcinogenic
- Highly accurate
- US EPA approved
- 2 year shelf life for all values
- Traceable to NIST
- Ready to use - our range covers the full turbidity measurement range

Reagecon's turbidity standards for ratio and non-ratio instruments are composed of suspended polymer microspheres. These turbidity standards remove the handling, stability and accuracy problems associated with traditional Formazin turbidity standards; (for detailed comparison, see Table 1).

Turbidity Measurement

Accurate and precise laboratory or online analytical measurement can be influenced by the following 6 key parameters:

- Measuring Instrument
- Measuring Accessories
- The Sample
- The Operator
- Standards and Reference Material
- Measuring Environment

The technical validation, comparability, quality control/assurance, proficiency testing and traceability of any analysis require significant attention to detail of all these parameters. Turbidity measurement is no different in this respect.

The Standard / Reference Material

The nephelometric turbidity meter is designed to be routinely standardised with a known light scattering standard. As with all analytical standards or reference materials, a turbidity standard should fulfil the following criteria:

- Provide traceability.
- Demonstrate the accuracy of results.
- Calibrate the equipment and methodology.
- Monitor the user performance.
- Validate the test.
- Facilitate comparability i.e. to ensure that when the correct procedures have been followed the same analysis of the same materials will produce results that agree with each other whenever they are performed.

Standards and Reference materials should be produced and characterised in a technically competent manner, should be homogenous, stable, certified and have available a known uncertainty of measurement. Presently, there are only two types of standards recognised and approved by the USEPA, Standard Methods, ASTM and other regulatory agencies, these are formazin or formazin derived standards and suspended polymer microspheres.

Table 1: Comparison of Reagecon Polymer Microsphere & Formazin Turbidity Standards

Feature	Reagecon Polymer Microspheres	Formazin
Toxicity	Non-toxic. No special handling or disposal requirements	Very toxic, contains a known carcinogen. Requires special handling and disposal
Particle shape & size	Well defined spherical shape. Mean diameter is 0.06µm with a distribution between 0.01 and 0.2µm.	Irregular shape and distribution. Mean diameter is 3µm with a distribution between 1 and 20µm.
Shelf life	Does not deteriorate or settle out. A long stable shelf life at all concentrations.	Flocculates and deteriorates. Lower concentrations change value within days, or hours, after preparation.
Particle suspension	Particles stay in suspension. Mixing is discouraged as it entrains air.	Particles settle quickly, suspension must be continuously mixed. Mixing induces shearing.
Traceability	Certified traceable to NIST Reference Material 1690	Non traceable
Precision (batch to batch)	Mean of SD's 0±0.00	Mean of SD's 0.9±0.2
Inter-instrument reproducibility	0.5 ±0.0	0.8±0.2
Stability	0.1 – 4000 NTU (1 year)	4000 NTU (3 months). Need for dilutions to be prepared daily or weekly.
Accuracy	Highly accurate for Reagecon Polymer Microspheres	±10% (4000 NTUs) up to ±30% for dilute working 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

Chemical Oxygen Demand

Chemical Oxygen Demand (COD) Standards

Reagecon's offering includes a comprehensive range of COD Standards. These standards are ideal for use as Control Standards to verify that correct analysis for COD has taken place. Achieving an acceptable result for the Control Standard will improve confidence in sample readings for this important environmental parameter.

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

Reagecon's product offering includes reagents for the two accepted methods for measuring COD at concentrations less than 400mg/l. Where the concentration is greater than 400mg/l, dilute the sample.

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	Ferriin 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.

Chemical Oxygen Demand (COD) Vials

Reagecon's COD Reagent Vials can be used in conjunction with the Aqualytic PC Spectro, PC Compact Vario and all Hach® spectrophotometers. This compatibility is proven in the Reagecon Technical Publication, "A comparative study of the performance of Reagecon COD vials and Hach TM COD vials". Reagecon also offer a collection and disposal service in certain territories for used vials that complies with all relevant dangerous goods disposal and environmental regulations.

Product No.	Description	Pack Size
420720	Measuring Range 0-150mg/l	pk25
420720R	Measuring Range 0-150mg/l with compliant disposal	pk25
420721	Measuring Range 0-1500mg/l	pk25
420721R	Measuring Range 0-1500mg/l with compliant disposal	pk25
420722	Measuring Range 0-15000mg/l	pk25
420722R	Measuring Range 0-15000mg/l with compliant disposal	pk25

Analytical Volumetric Solutions

The Principle of Titrimetry

Titrimetry or measurement by titration includes a set of widely used analytical techniques, some of which have been in widespread use for almost 200 years. Volumetric titration dates back at least to the work of French chemist Gay-Lussac, who devised a method in 1835 to determine the purity of Silver, using standardised Sodium Chloride as the titrant.

The principle of all titrimetry involves the determination of the quantity of the reagent of known concentration (titrant), that is required to react completely with an unknown analyte. Volumetric titrimetry involves measuring the volume of the solution of known concentration (titrant) consumed, gravimetric titrimetry measures the mass of the reagent consumed and coulometric titration measures a direct electrical current of known magnitude that consumes the analyte. In coulometry, the time it takes to complete the electrochemical reaction, is the measurand.

An analytical volumetric solution (also called titrant, standard titrant or standard solution) is a reagent of known concentration that is added from a burette or other dispensing apparatus to a sample (analyte) until a reaction between the two liquids is judged to be complete. This completeness (end point) is usually observed in a manual titration by the production of a physical change read visually as the titrant is added to the analyte. Such a change may include an appearance, disappearance or change of colour or appearance/disappearance of turbidity (cloudiness). Nowadays, instruments are widely used to detect the end points by detection of any of several properties or characteristics of the analyte solution including colour, turbidity, temperature, refractive index, potential difference, current or conductivity. In simple terms titrimetry is broadly divided into two main classifications - manual and instrumental - irrespective of how the end point is detected. In the case of manual titrations, indicator, titrant or analyte change of colour is by far the most important method of end point detection. Therefore, the availability of a wide selection of indicators is an integral part of any offering of Analytical Volumetric Solutions. This catalogue carries by far the most extensive offering of both indicators and titrants available in the market place. The end point in automatic titration is indicated most commonly by a change in potential of an electrode that responds to the concentration of the reagent or the analyte.

Analysis by titration brings a large number of benefits to the analyst including the following:

- It is an absolute method
- Relatively easy to perform (although high accuracy manual titration requires practice, dexterity, experience and sound judgement)
- Rapid, cheap and versatile
- Accurate, reproducible, traceable and comparable

Furthermore, titration reactions should exhibit defined stoichiometry, be quantitative, establish equilibrium that is definite and fast, and provide unambiguous results.

Types of Titration Reactions

Acid/Base reactions (also called neutralisation titrations)

These are used to determine either the amount of acid/base in an analyte or substances that can be converted to an acid/base. They may also sometimes be used to track the progress of chemical reactions that produce or consume hydrogen ions. The titrants are always strong acids or bases and include hydrochloric acid, perchloric acid, sulphuric acid, sodium hydroxide, potassium hydroxide and sometimes barium hydroxide. Weak acids or bases are not used because they react incompletely with the analyte. The colour indicator used in an acid base titration is a weak acid/base itself which in its undissociated form differs in colour from its conjugate acid or base form. Typical elements suitable to this type of titration method include carbon, nitrogen, chlorine, bromine and fluorine. Pretreatment of these elements converts the element to an inorganic acid or base that is then titrated. An example is nitrogen which occurs in a wide range of forms both organic, inorganic or as a constituent of biological materials. Therefore, a methodology for nitrogen measurement in amine groups such as the Kjeldahl method is extremely important in determining the protein content in grains, meats, and other human or animal foodstuffs. In addition to amines, others like esters and hydroxyl functional groups can also be determined. In addition, inorganic compounds such as carbonates, ammonium salts and several other NO_x species can be determined.

Fields of Application

- Acid content in wine, milk, ketchup, fruit juice (etc)
- Content of HCl, HNO₃, H₂SO₄, NaOH, KOH
- Alkalinity determination in water
- TAN and TBN in petroleum products, edible or inedible oils and fats
- Determination of boric acid in cooling fluids of nuclear power stations
- Determination of free or total acidity in plating baths
- Determination of active ingredients in drugs or raw materials for the pharmaceutical industry
- Total nitrogen determination by Kjeldahl
- Wide range of inorganic, organic or biological species that possess inherent acidic or basic properties
- Use of chemical treatment that converts an analyte to an acid or base followed by titration with standardised strong acid or base

Oxidation/Reduction Titrations

These titrations may be performed manually or potentiometrically. In manual titrations, if indicators are used, they change colour upon being oxidized or reduced, independently of the chemical nature of the titrant or analyte. Instead, they depend on changes in the electropotential of the oxidation reduction system. Examples of such indicators include:

- Iron (III) complexes of orthophenothrolines
- Starch solutions
- Potassium thiocyanate

The principle of this type of titration involves a reaction between an oxidising and reducing pair, e.g. titration of iron (II) with cerium (IV) sulphate

- **Oxidising agents (examples)**
 - Iodine (Iodometry), potassium dichromate, potassium permanganate, potassium bromate, cerium (IV) ammonium nitrate, cerium (IV) ammonium sulphate, cerium (IV) hydrogen sulphate, cerium hydroxide, chlorine
- **Reducing agents (examples)**
 - Sodium thiosulphate, oxalic acid, iron ammonium (II) sulphate (Mohr's salt), hydrogen peroxide, phenylarsine oxide (PAO), iron (II) ethylene diamine sulphate

Fields of Application

- **Environment**
 - COD of water
 - Oxidation capacity of water by permanganate.
- **Food and beverage**
 - Determination of free and total SO₂ in water, wine, alcohol, dried fruit etc.

- **Pharmaceuticals**
 - Vitamin C determination.
 - Surface treatment
 - Titration of copper or tin using iodine.
 - Titration of chromium (VI)
- **Petrochemicals**
 - Determination of water in hydrocarbons

Complexometric Titrations

Complexometric reactions have many applications in chemical analysis and in science in general. Their use in titrimetry is a very important one of these applications. The reaction end point is detected either potentiometrically or manually using an indicator, whereby, a metal ion reacts appropriately with a ligand to form a complex. EDTA is the most widely used titrant in complexometric reactions although the use of other chemicals similar to EDTA are described in the literature; e.g. nitrilotriacetic acid. Generally, organic dyes that form complexes with metal ions to form chelates are used as indicators, a commonly used one being Eriochrome Black T. Methods have been developed, validated and published for detection or quantification of almost every metal in the periodic table with the exception of the Alkali metals using EDTA complexation. This includes methods for at least 40 metals developed in our metals laboratory in Reagecon, with more at development or validation stage.

This methodology is regularly used to determine the concentration of divalent cations such as calcium, magnesium, copper, lead, zinc, cadmium, aluminium

Fields of application

- **Environment**
 - Total hardness of water (Ca^{2+} and Mg^{2+}).
- **Surface treatment**
 - Determination of Cu^{2+} , Ni^{2+} , Pb^{2+} , Zn^{2+} in plating baths

Precipitation Titrations

This analytical methodology is based on reactions that yield compounds of limited solubility. There is not a very wide range of precipitating agents that can be used gainfully in titrimetry and silver nitrate is by far the most important. These titrations, (also called argentometric titration) is where silver nitrate is used as the titrant. Silver nitrate can be used for determination of halides (Cl^- , I^- , Br^-) and anions that behave like halides (SCN^- , CN^- , CNO^-). It can also be used for determination of Mercaptans and organic materials that include Fatty Acids. Indicators typically used for precipitation titrations include sodium chromate, fluorescein and iron (III). A wide range of standardised silver nitrate titrants are available, some of which are standardised to specifically give a one to one equivalence with sodium chloride in various food stuffs.

Fields of Application

- **Environment**
 - Determination of chloride in water
- **Food and beverage**
 - Determination of chloride in many finished products (cooked meats, dairy products, etc.)
- **Precious metals**
 - Determination of silver
- **Pharmaceuticals**
 - Titration of halides

Analytical Volumetric Solutions

Description	Product No. 1L	Product No. 5L
Acetic acid 0.1M	CH20101	CH20105
Acetic acid 0.5M	CH20051	CH20055
Acetic acid 1.0M	CH21001	CH21005
Acetic acid 2.0M	CH22001	CH22005
Ammonia 0.1M	NH20101	NH20105
Ammonium Chloride 0.1M	NHCl011	
Ammonium Hydroxide 0.5M	NH2051	
Ammonium Hydroxide 6M	NH32601	
Ammonium Iron (II)Sulphate 0.1M	NHS2011	
Ammonium sulphate 0.5M	AS2051	AS2055
Ammonium Thiocyanate 1.0M	AT21F	
Barium chloride 0.05M	BACL20051	BACL20055
Barium chloride 0.5M	BACL2051	BACL2055
Barium chloride 1.0M	BACL2101	BACL2105
Barium Perchlorate 0.005M Alcoholic Solution	BACLO200051	
Bromine (Bromate/bromide) 0.05M	BR20101	BR20105
Calcium acetate 1.0M	CAAC2101	CAAC2105
Calcium chloride 0.005M	CACL20051	CACL20055
Calcium chloride 0.01M	CACL20011	CACL20015
Calcium chloride 0.0125M	CACL2001251	CACL2001255
Calcium chloride 0.02M	CACL20021	CACL20025
Calcium chloride 0.5M	CACL2051	CACL2055
Calcium Chloride 1.0M	CACL101	
Cerium IV sulphate 0.05M	CS20051	CS20055
Cerium IV sulphate 0.1M	CS2011	CS2015
Cerium IV sulphate 0.2M	CS20251	CS20255
Cerium IV sulphate 1.0M	CS2101	CS2105
Citric Acid 1.0M	CH2101	
Copper II Chloride 0.5M	CUCL2051	CUCL2055
Copper II sulphate 0.1M	CUS02011	CUS02015
Copper II sulphate 0.5M	CUS02051	CUS02055
Cupric solution 0.168M	CU201681	CU201685
Di-Potassium Oxalate 0.05M	KO20051	KO20055
EDTA (DiSodium salt) 0.01M	ED20011	ED20015
EDTA (DiSodium salt) 0.02M	ED20021	
EDTA (DiSodium Salt) 0.027M	EDB200271	
EDTA (DiSodium salt) 0.05M	ED20051	
EDTA (DiSodium salt) 0.1M	ED2011	ED2015
Hyamine 1622 -Benzethonium chloride 0.004M	HY0041	HY0045
Hyamine 1622 -Benzethonium chloride 0.04M	HY041	HY045
Hydrochoric Acid 0.01M	H20011	H20015
Hydrochoric Acid 0.02M	H20021	H20025
Hydrochloric Acid 0.027M	H200271	
Hydrochoric Acid 0.0357M	H2003571	H2003575
Hydrochoric Acid 0.05M	H20051	H20055
Hydrochoric Acid 0.1M	H20101	H20105
Hydrochoric Acid 0.2M	H20201	H20205
Hydrochloric Acid 0.233M		H202335
Hydrochoric Acid 0.25M	H20251	H20255
Hydrochoric Acid 0.357M	H203571	H203575
Hydrochloric Acid 0.5M	H20501	H20505
Hydrochloric Acid 1.0M	H21001	H21005
Hydrochloric Acid 1.8M		H21805
Hydrochloric Acid 2.0M	H22001	H22005
Hydrochloric Acid 3.57M	H23571	H23575
Hydrochloric Acid 3M	H23001	H23005
Hydrochloric Acid 4M		H24005
Hydrochloric Acid 5.0M	H25001	H25005
Hydrochloric Acid 6.0M	H26001	H26005

Analytical Volumetric Solutions

Description	Product No. 1L	Product No. 2.5L	Product No. 5L
Hydrofluoric Acid 0.05M	HF20051		HF20055
Iodine 0.005M	I20005F		
Iodine 0.02365M	I20023F		
Iodine 0.05M	I2005F	I2005W	
Iodine 0.5M	I2050F	I2050W	
Iron (II) Sulphate 0.1M	FES2011		
Iron (II) Sulphate 0.2M	FES2021		FES2025
Iron (III) Chloride 1.0M	FECL211		FECL215
Lactic Acid 0.1M	CH6011		
Lead (II) Acetate 0.05M	PBA20051		PBA20055
Lead (II) Acetate 0.5M	PBA2051		PBA2055
Lead (II) Nitrate 0.5M	PBN02051		PBNO2055
Lead Nitrate 0.01M	PB20011		
Lead Nitrate 0.1M	PB2011		
Lithium Methoxide 0.1M in Toluene/Methanol			
Magnesium Chloride 0.01M	MG20011		MG20015
Magnesium Chloride 0.1M	MG2011		MG2015
Magnesium Sulphate 0.09M	MS0091		
Magnesium Sulphate 0.1M	MGS02011		MGSO2015
Manganese (II) Chloride 0.05M	MNCL20051		MNCL20055
Manganese (II) Chloride 0.5M	MNCL2051		MNCL2055
Mercuric (II) Nitrate 0.05M	HGN20051		
Mercury (I) Nitrate 0.1M	HGN2011		HGN2015
Mercury (II) Nitrate 0.01M	HGN20011		HGN20015
Mercury (II) Nitrate 0.005M	HGN200051		HGN200055
Methanolic HCl 0.5M		MH2050	
Morpholine 0.5M in Methanol		MD2050	
Nickle (II) Chloride 0.05M	NICL20051		NICL20055
Nickle (II) Chloride 0.5M	NICL2051		NICL2055
Nitric Acid 0.01M	NO20011		
Nitric Acid 0.02M	NO20021		NO20025
Nitric Acid 0.1M	NO20101		NO20105
Nitric Acid 1.0M	NO21001		NO21005
Nitric Acid 2.0M	NO22001		NO22005
Nitric Acid 4.0M	NO24001		NO24005
Nitric Acid 6.0M	NO26001		
Nitric Acid 8.0N 8.0M	NO28001		NO28005
Oxalic Acid 0.025M	OA200251		OA200255
Oxalic Acid 0.05M	OA20051		OA20055
Oxalic Acid 0.1M	OA2011		
Oxalic Acid 0.5M	OA2051		OA2055
Perchloric Acid in 1.4 Dioxan	PD201F	PD201W	
Perchloric Acid in Acetic Acid 0.1M	P2010F	P2010W	
Perchloric Acid in Acetic Acid 0.5M	P2050F		
Phenylarsine Oxide 0.00564M	CH500561		
Phosphorous Tribromide 1M in Dichloromethane		PBR3DCM	
Potassium Biiodate 0.025N	HK2O0025F		
Potassium Biiodate 0.1N	HK2O01F		
Potassium Bromate/Bromide 0.0167M	KB20016F	KB20016W	
Potassium Bromide 0.5M	KBR205F		
Potassium Bromide 1M	KBR21F		
Potassium Chloride 0.01M	KCL20011		
Potassium Chloride 0.2M	KCL2021		KCL2025
Potassium Chloride 0.5M	KCL2051		
Potassium Chloride 1.0M	KCL2101		KCL2105
Potassium Dichromate 0.0167M	KC20016F	KC20016W	
Potassium Dichromate 0.02M	KC20021		
Potassium Dichromate 0.041M	KC20041F	KC20041W	
Potassium Dichromate 0.167M	KC2016F	KC2016W	
Potassium Dichromate 0.25M	KC20251		

Analytical Volumetric Solutions

Description	Product No. 1L	Product No. 2.5L	Product No. 5L
Potassium Ferricyanide 0.1M	KFE2011		KFE2015
Potassium Hydrogen Phthalate 0.1M	PHP2011		PHP2015
Potassium Hydroxide 0.05M	KOH20051		KOH20055
Potassium Hydroxide 0.1M	KOH20101		KOH20105
Potassium Hydroxide 0.1M in Ethanol	ETKOH01F	ETKOH01W	
Potassium Hydroxide 0.1M in Methanol	MKOH01F	MKOH01W	
Potassium Hydroxide 0.223M			KOH202235
Potassium Hydroxide 0.23M			KOH20235
Potassium Hydroxide 0.5M	KOH20501		KOH20505
Potassium Hydroxide 0.5M in Ethanol	ETKOH05F	ETKOH05W	
Potassium Hydroxide 0.5M in Methanol	MKOH205F	MKOH205W	
Potassium Hydroxide 1.0M	KOH21001		KOH21005
Potassium Hydroxide 1.0M in Ethanol	ETKOH1F	ETKOH1W	
Potassium Hydroxide 1.0M in Methanol	MKOH1F	MKOH1W	
Potassium Iodate 0.0147M		PI2008W	
Potassium Iodate 0.01667M		PI20016W	
Potassium Iodate 0.025M		PI20025W	
Potassium Iodate 0.05M		PI2005W	
Potassium Iodate/Iodide 0.00333M		PII2002W	
Potassium Iodide 0.1M	KI2011		KI2015
Potassium Iodide 1.0M	KI2101		KI2105
Potassium Iodide 3.0M	K12301		K12305
Potassium Methoxide 0.1M			
Potassium Permanganate 0.01M	PP2001F	PP2001W	
Potassium Permanganate 0.02M	PP2002F	PP2002W	
Potassium Permanganate 0.2M	PP2020F	PP2020W	
Potassium Thiocyanate 0.02M	KT2002F	KT2002W	
Potassium Thiocyanate 0.05M	KT2005F	KT2005W	
Potassium Thiocyanate 0.1M	KT201F	KT201W	
Potassium Thiocyanate 1.0M	KT210F	KT210W	
Silver Nitrate 0.0141M		N20014W	
Silver Nitrate 0.0192N	N20019F		
Silver Nitrate 0.025M	N20025F		
Silver Nitrate 0.0282M		N20028W	
Silver Nitrate 0.02M	N20020F	N20020W	
Silver Nitrate 0.05M	N20050F	N20050W	
Silver Nitrate 0.085M		N20085W	
Silver Nitrate 0.1709M	N201709F	N201709W	
Silver Nitrate 0.1M	N20100F	N20100W	N201005
Silver Nitrate 0.1M in Methanol	MN2010F		
Silver Nitrate 0.5M	N2050F		
Silver Nitrate 1.0M	N21000F	N21000W	
Silver Nitrate in Methanol 0.01M	MN20010F		
Sodium Acetate 0.2M	SA02F		
Sodium Acetate 2.0M L	SA2F		
Sodium acetate solution 0.3M	SA03MOLF1		
Sodium Arsenite 0.005M	SA200005F		
Sodium Arsenite 0.05M	SA2005F		
Sodium Arsenite 0.15M	SA2015F		
Sodium Arsenite 0.5M		SA2005W	
Sodium Carbonate 0.05M	SC20051		SC20055
Sodium Carbonate 0.5M	SC20501		SC20505
Sodium Chloride 0.05M	NACL20051		NACL20055
Sodium Chloride 0.1M	NACL2011		NACL2015
Sodium Chloride 1M	NACL2011		
Sodium Hydroxide (Low in carbonate) 0.1M	S20101LC		S20105LC
Sodium Hydroxide (Low in carbonate) 0.5M	S20501LC		S20505LC
Sodium Hydroxide (Low in carbonate) 1.0M	S21001LC		S21005LC

Analytical Volumetric Solutions

Description	Product No. 1L	Product No. 2.5L	Product No. 5L
Sodium Hydroxide 0.01M	S20011	S20015	
Sodium Hydroxide 0.02M	S20021	S20025	
Sodium Hydroxide 0.05M	S20051	S20055	SB200510
Sodium Hydroxide 0.111M	S20111	S20115	
Sodium Hydroxide 0.156M	S20011		
Sodium Hydroxide 0.1M	S20101	S20105	SB20110
Sodium Hydroxide 0.25M	S20251	S20255	
Sodium Hydroxide 0.2M	S20201	S20205	SB202010
Sodium Hydroxide 0.313M	S203131	S203135	
Sodium Hydroxide 0.35465M	S2035461	S2035465	
Sodium Hydroxide 0.5M	S20501	S20505	SB205010
Sodium Hydroxide 0.6M		S2065	
Sodium Hydroxide 1.0M	S21001	S21005	SB210010
Sodium Hydroxide 1.2M		SB21205	SB212010
Sodium Hydroxide 10M	S10001		
Sodium Hydroxide 2.0M	S22001	S22005	SB220010
Sodium Hydroxide 3.57M	S23571	S23575	SB235710
Sodium Hydroxide 4M	S24001		
Sodium Hydroxide 5.0M	S25001	S25005	SB250010
Sodium Hydroxide 6M	S26001		
Sodium Lauryl (Dodecyl) Sulphate 0.1M	SLS011		
Sodium Methoxide Titrant 0.5M in Methanol			
Sodium Nitrite 0.1M	NANO011		
Sodium Nitrite 0.2M	NANO021		
Sodium Nitrite 0.5M	NANO051	NANO055	
Sodium Nitrite 1M	NANO11		
Sodium Nitrite 4M	NANO41		
Sodium Oxalate 0.025M	NAC00251		
Sodium Oxalate 0.05M	NAX0051		
Sodium Thiocyanate 0.1M	NAT20101	NAT20105	
Sodium Thiocyanate 1.0M	NAT21001	NAT21005	
Sodium Thiosulphate 0.001M	T200011		
Sodium Thiosulphate 0.0125M	T2001251		
Sodium Thiosulphate 0.01M	T20011	T20015	TB200110
Sodium Thiosulphate 0.02M	T20021		
Sodium Thiosulphate 0.0551M	T2005511	T2005515	
Sodium Thiosulphate 0.05M	T20051	T20055	
Sodium Thiosulphate 0.1M	T20101	T20105	TB201010
Sodium Thiosulphate 1.0M	T21001	T21005	TB210010
Sodium Thiosulphate 2.0M	T22001		
Sulphuric Acid 0.005M	SU200051		
Sulphuric Acid 0.01M	SU20011	SU20015	
Sulphuric Acid 0.025M	SU200251		
Sulphuric Acid 0.0416M	SU2004161	SU2004165	
Sulphuric Acid 0.05M	SU20051	SU20055	
Sulphuric Acid 0.1275M	SU2012751	SU2012755	
Sulphuric Acid 0.128M		SU201285	
Sulphuric Acid 0.13M	SU20131	SU20135	
Sulphuric Acid 0.1M	SU20101	SU20105	
Sulphuric Acid 0.25M	SU20251	SU20255	SUB202510
Sulphuric Acid 0.319M	SU203191	SU203195	
Sulphuric Acid 0.5M	SU20501	SU20505	SUB205010
Sulphuric Acid 0.9M		SU2095	
Sulphuric Acid 1.0M	SU21001	SU21005	SUB210010
Sulphuric Acid 2.5M	SU22501	SU22505	SUB225010
Sulphuric Acid 5.0M	SU25001	SU25005	SUB250010

Analytical Volumetric Solutions

Description	Product No. 2.5L	Product No. 500ML
Tetra Butylammonium Fluoride 1M in THF CA 5% water soln-2.5L	TBAF125	
Tetra N Butyl Ammonium Hydroxide 0.02M in 50/50 Methanol/Propan-2-ol		TB002H
Tetra n Butyl Ammonium Hydroxide 0.1M in 50/50 Methanol/Propan-2-ol		TB010H
Tetra n Butyl Ammonium Hydroxide 0.5M in 50/50 methanol / Propan-2-ol		TB050H

Description	Product No. 1L	Product No. 5L
Zinc Chloride 0.01M	ZNCL20101	ZNCL20105
Zinc Chloride 0.5M	ZNCL20501	ZNCL20505
Zinc Sulphate 0.02M	ZS021	
Zinc Sulphate 0.05M	ZNS000501	ZNSO00505
Zinc Sulphate 0.1M	ZS011	ZNSO0105

Concentrated Volumetric Solutions

Each Ampoule is supplied in its own box, full instructions are printed on the box.

Description	Ampoule to make 1L
Acetic acid 1.0M	CHC101L
EDTA (DiSodium salt) 0.01M	EDC0011L
EDTA (DiSodium salt) 0.1M	EDC0101L
EDTA 0.05M	ETC0051L
Hydrochloric Acid 0.1M	HC0101L
Hydrochloric Acid 0.2M	HC0201L
Hydrochloric Acid 0.5N 0.5M	HC0501L
Hydrochloric Acid 1.0M	HC1001L
Iodine 0.005M	IC00051L
Iodine 0.05M	IC0051GL
Iodine 0.025M	IC025G1L
Potassium Chloride 0.01M	KCL0101L
Silver Nitrate 0.0282M	NC00281L
Silver Nitrate 0.1M	NC0101L
Ammonia 0.1M	NH4C011L
Ammonia 1.0M	NH4C101L
Ammonium Thiocyanate 0.1M	NHTC011L
Nitric Acid 1.0M	NOC101L
Oxalic Acid 0.05M	OA20051L
Potassium Permanganate 0.02M	PCO021GL
Sodium Hydroxide 0.1M	SC0101L
Sodium Hydroxide 0.5M	SC0501L
Sodium Hydroxide 1.0M	SC1001L
Sulphuric Acid 0.01M	SUC0011L
Sulphuric Acid 0.05M	SUC0051L
Sulphuric Acid 0.5M	SUC051L
Sodium Thiosulphate 0.0125M	TC00121L
Sodium Thiosulphate 0.1M	TC0101L

Indicator Solutions

Product No.	Description	Pack Size
ALRED01	Alizarine Red solution 125mls	125ml
ALREDH	Alizarine Red solution 500mls	500ml
AZVIO01	Azo Violet Indicator, 0.1% (w/v) Alcoholic Solution	125ml
1012602	Bromocresol Green - Methyl Red Mixed Indicator	100ml
BRCGM05	Bromocresol Green Indicator, 0.04% (w/v) in Methanol	500ml
BRCG0105	Bromocresol Green Indicator, 0.1% (w/v) Aqueous Solution	500ml
BRCGIPA0105	Bromocresol Green Indicator, 0.1% (w/v) in IPA	500ml
BRCG105	Bromocresol Green Indicator, 1% (w/v) Aqueous Solution	500ml
BRCG05	Bromocresol Green, 0.04%	500ml
BRPBB02M05	Bromocresol Purple - Bromothymol Blue Mixed Indicator 0.2% (w/v) in Methanol	500ml
BRP01M05	Bromocresol Purple Indicator, 0.1 % (w/w) in Methanol	500ml
BRP0105	Bromocresol Purple Indicator, 0.1% (w/v) Aqueous	500ml
BRP0405	Bromocresol Purple Indicator, 0.4% (w/v) Aqueous	500ml
BRP1M05	Bromocresol Purple Indicator, 1 % (w/w) in Methanol	500ml
BRP105	Bromocresol Purple Indicator, 1% (w/v) Aqueous	500ml
1012701	Bromocresol Purple, 0.04%	100ml
BRBPIPA05	Bromophenol Blue Indicator, 0.04% (w/v) in Isopropyl Alcohol	500ml
BRBP00505	Bromophenol Blue Indicator, 0.05% Aqueous	500ml
BRBP0105	Bromophenol Blue Indicator, 0.1% (w/v) Aqueous Solution	500ml
BRBPIPA0105	Bromophenol Blue Indicator, 0.1% (w/v) in Isopropyl Alcohol	500ml
BRBP0405	Bromophenol Blue Indicator, 0.4% Aqueous	500ml
BRBP0125	Bromophenol Blue, 0.04%	125ml
BRBP05	Bromophenol Blue, 0.04%	500ml
BRTH00205	Bromothymol Blue Indicator, 0.02% (w/v) Aqueous Solution	500ml
BRTHIPA00205	Bromothymol Blue Indicator, 0.02% (w/v) in Isopropyl Alcohol	500ml
BRTHIPA00405	Bromothymol Blue Indicator, 0.04% (w/v) in Isopropyl Alcohol	500ml
BRTH05	Bromothymol Blue, 0.04%	500ml
CALM00505	Calmagite Indicator, 0.05% (w/v) Aqueous Solution	500ml
CALM0105	Calmagite Indicator, 0.1% (w/v) Aqueous Solution	500ml
CALM0605	Calmagite Indicator, 0.6% (w/v) Aqueous Solution	500ml
CALM105	Calmagite Indicator, 1%	500ml
CAUB0105	Caustic Blue Indicator, 0.1% (w/v) Aqueous Solution	500ml
CPR05	Chlorophenol Red, 0.04%	500ml
COR105	Congo Red 0.1%	500ml
COR1005	Congo Red Indicator, 1% (w/v) Aqueous Solution	500ml
CRER0405	Cresol Red Indicator, 0.04% (w/v) Aqueous	500ml
CRER205	Cresol Red Indicator, 0.2% (w/v) Aqueous	500ml
CVSOLN011	Crystal Violet Indicator, 0.1% (w/v) in Glacial Acetic Acid, for Nonaqueous Titrations	100ml
CVSOLN021	Crystal Violet Indicator, 0.2% (w/v) in Glacial Acetic Acid, for Nonaqueous Titrations	100ml
CVSOLN1	Crystal Violet solution 1% in Glacial Acetic Acid	100ml
1022901	Crystal Violet, 0.1% (Non-aqueous indicator)	100ml
DPC05	Diphenylcarbazone 0.1%	500ml
DPCBRBP05	Diphenylcarbazone-Bromophenol Blue Mixed Indicator	500ml
EOW00051	Eosin Y TS, 0.5% (w/v) Aqueous Solution, Adsorption Indicator for Argentometric Titrations	1L
EOW0011	Eosin Y 1% (w/v) Aqueous Solution, Adsorption Indicator	1L
EBB05	Erichrome Blue Black R	500ml
EBTT05	Eriochrome Black T Indicator in Triethanolamine, Water Hardness Indicator	500ml
EBTNA0105	Eriochrome Black T Indicator, 1% (w/w) in Sodium Chloride	500ml
EBTNA0205	Eriochrome Blue Black R Indicator, 0.2% (w/w) in Sodium Chloride	500ml
ETVIO1M05	Ethyl Violet Indicator, 0.1% w/v in 50% Methanol	500ml

Product No.	Description	Pack Size
FS0101	Fehlings solution No. 1	1L
FS0102	Fehlings solution No. 2	1L
FEAL1	Ferric Alum Indicator Solution	1
1037702	Ferric Ammonium Sulfate	1L
PFS1	Ferroun Indicator	100ml
FEI0011	Ferroun Indicator, 0.01 Molar	1L
FEI00251	Ferroun Indicator, 0.025 Molar	1L
TB04F	Indicator Thymol Blue Alcoholic Sol. 0.04%	500ml
INDCA05	Indigo Carmine Indicator	500ml
FEA25	Iron Alum (Volhard)	250ml
MGI00505	Malachite Green Indicator, 0.05% (w/v) Aqueous Solution	500ml
MBTHI00505	MBTH Indicator, 0.05%	500ml
MBTHI0505	MBTH Indicator, 0.5% (w/v) Aqueous Solution	500ml
MCP00405	m-Cresol Purple Indicator, 0.04% (w/v) Aqueous	500ml
MCP0105	m-Cresol Purple Indicator, 0.1% (w/v) Aqueous	500ml
MCP05	m-Cresol Purple, 0.4%	500ml
MTPSI01	Metalphthalein-Screened Indicator RS	100ml
MOXCI05	Methyl Orange - Xylene Cyanol Indicator Solution	500ml
MTR05025	Methyl Orange Indicator Alcoholic solution 0.1%	250ml
M004F	Methyl Orange Indicator, 0.04% Aqueous Solution	500ml
MPRIPA1505	Methyl Purple Indicator, in dilute IPA (15% v/v)	500ml
MTR06025	Methyl Red Alcoholic solution 0.1%	250ml
1055102	Methyl Red Alcoholic solution 0.02%	100ml
TASHI025	Methyl Red- Methylene Blue Indicator	250ml
1055102	Methyl Red, 0.02%	100ml
MTBLU0050250	Methylene Blue, 0.05%	250ml
MTBLU010250	Methylene Blue, 0.1%	250ml
MTBLU10250	Methylene Blue, 1%	250ml
PR045	Phenol Red Indicator, 0.04% (w/v) Aqueous Solution	500ml
PR105	Phenol Red Indicator, 0.1% (w/v) Aqueous	500ml
PR505	Phenol Red Indicator, 0.5% (w/v) Aqueous Solution	500ml
PR1005	Phenol Red Indicator, 1% (w/v) Aqueous Solution	500ml
1063601	Phenol Red, 0.02%	100ml
IPT01H	Phenolphthalein indicator, 0.1%	500ml
IPT05H	Phenolphthalein Indicator, 0.5%	500ml
IPT1025	Phenolphthalein indicator, 1%	250ml
IPT10H	Phenolphthalein indicator, 1%	500ml
IPT16W	Phenolphthalein indicator, 1.6%	2.5L
PCS5	Potassium chromate, 5%	500ml
MOS05	Screened Methyl Orange Alcoholic solution 0.1%	500ml
ST105	Starch Indicator 1%	500ml
ST205	Starch Indicator 2%	500ml
ST0055	Starch Indicator, 0.05% (w/v)	500ml
ST0205	Starch Indicator, 0.2% (w/v) Aqueous Solution	500ml
ST0255	Starch Indicator, 0.25% (w/v) Aqueous Solution	500ml
ST0305	Starch Indicator, 0.3% (w/v)	500ml
ST0505	Starch Indicator, 0.5% (w/v)	500ml
ST0505P	Starch Indicator, with 0.5% Potassium Iodide	500ml
ST505P	Starch Indicator, with 5% Potassium Iodide	500ml
SO0405	Sulfo Orange, 0.04%	500ml
SO405	Sulfo Orange, 0.4%	500ml
SO0105	Sulfo Orange, 0.1% (w/v) (Tropaeolin O) Aqueous Solution	500ml
1090701	Thymolphthalein Indicator, 0.05% (w/v) in 90% (v/v) Alcohol	100ml
1090701	Thymolphthalein, 0.05%	100ml
UN1005	Universal Indicator solution	50ml
VANG5H	Van Gieson Stain 500ml	500ml
WHI05	Water Hardness Indicator	500ml

Total Acid Number/ Total Base Number Standards & Reagents

The products listed in this section for Total Acid Number (TAN) and Total Base Number (TBN) are used in procedures to test and control the acidic or basic constituents in petroleum, lubricants, biodiesel or blends of biodiesel.

Total Acid Number (TAN)

The procedures for the measurement of this parameter (laid down in various ASTM methods) vary depending on sample solubility in materials such as Toluene or Propan-2-ol, the dissociation constants of the acids in water, or the nature of the test sample. Therefore, the methodology used for lubricants may be different from the methodology used for biodiesel. In new and used oils the constituents that may be considered to have acidic characteristics include organic acids, inorganic acids, esters, phenolic compounds, lactones, resins, salts of heavy metals, acid salts of polybasic acids, and additives such as inhibitors and detergents.

The test method is used to indicate relative changes that occur in oil during use under oxidising conditions regardless of the colour or other properties of the oil. The method is also used as a guide in the quality control of lubricating oil formulations or as a measure of lubricant degradation. It is not intended to measure an absolute acidic property that can be used to predict performance of oil under working conditions. There is no known relationship between corrosion of bearings and acid number. The methodology of performing the test involves dissolving the sample in a titration solvent and titrating potentiometrically as an acid/base titration with alcoholic potassium hydroxide.

Total Base Number (TBN)

The constituents of oils and lubricants that may be considered to have basic characteristics include organic bases, inorganic bases, amino compounds, salts of weak acids (soaps), basic salts of polyacidic bases and salts of heavy metals. The test methodology involves dissolving the sample in an anhydrous mixture of chlorobenzene/glacial acetic acid and titrating potentiometrically with a solution of perchloric acid in glacial acetic acid. Both new and used petroleum products can contain basic constituents that are present as additives. The test is sometimes used as a measure of lubricant degradation but any condemning limits based on the test must be established on an individual basis.

The following list of products are a selection of Solvents, Titrants, Standards, Buffers and Electrolytes specifically formulated for the testing of TAN and TBN using ASTM methods D 664 and D 2896 respectively.

Reagents, Titrants & Standards for ASTM D664:

Acid Number of Petroleum Products by Potentiometric Titration

Product No.	Description	Pack Size
EFSLIET	Electrolyte: 1M lithium Chloride in Ethanol	100ml
104025	Buffer pH 4.00 - 25°C	1L
107025	Buffer pH 7.00 - 25°C	1L
111025	Buffer pH 11.00 - 25°C	1L
PH 20101	0.1M Hydrochloric Acid in propan-2-ol	1L
PH 201005	0.1M Hydrochloric Acid in propan-2-ol	500ml
KOH01F	0.1M Potassium Hydroxide in propan-2-ol	1L
KOH01H	0.1M Potassium Hydroxide in propan-2-ol	500ml
KOH001F	0.01M Potassium Hydroxide in propan-2-ol	1L
KOH001H	0.01M Potassium Hydroxide in propan-2-ol	500ml
TANSOLVF	TAN Titration solvent. Per litre: 500mls toluene, 495mls propan-2-ol, 5mls water	1L

TAN Standards: All in a Synthetic Base Oil Matrix

Product No.	Description	Pack Size
RETAN01	TAN standard: 0.1mg/g KOH	50g
RETAN05	TAN standard: 0.5 mg/g KOH	50g
RETAN10	TAN standard: 1.0 mg/g KOH	50g
RETAN15	TAN standard: 1.5 mg/g KOH	50g
RETAN20	TAN standard: 2.0 mg/g KOH	50g
RETAN25	TAN standard: 2.5 mg/g KOH	50g
RETAN30	TAN standard: 3.0 mg/g KOH	50g
RETAN45	TAN standard: 4.5 mg/g KOH	50g

Reagents, Titrants & Standards for ASTM D2896: Base Number of Petroleum Products by Potentiometric Titration

Product No.	Description	Pack Size
P2010F	0.1M Perchloric Acid in glacial acetic acid	1L
P2010H	0.1M Perchloric Acid in glacial acetic acid	500ml
EFSNACLO4	Electrolyte: saturated sodium perchlorate in glacial acetic acid	100ml
TBNSOLV1F	TBN Titration solvent - 2:1 chlorobenzene and glacial acetic acid	1L
NAAC010F	0.1N sodium acetate in glacial acetic acid	1L
NAAC010F	0.1N sodium acetate in glacial acetic acid	500ml
104025	Buffer pH 4.00 - 25°C	1L
107025	Buffer pH 7.00 - 25°C	1L
111025	Buffer pH 11.00 - 25°C	1L
TBNSOLV2F	TBN Titration solvent - 0.4M tetraethylammonium bromide in ethylene glycol	1L

TBN Standards: All in a Synthetic Base Oil Matrix.

Product No.	Description	Pack Size
RETNB1	TBN Standard: 1.0 mg/g KOH	50g
RETNB3	TBN Standard: 3.0 mg/g KOH	50g
RETNB6	TBN Standard: 6.0 mg/g KOH	50g
RETNB10	TBN Standard: 10 mg/g KOH	50g
RETNB15	TBN Standard: 15 mg/g KOH	50g
RETNB30	TBN Standard: 30 mg/g KOH	50g
RETNB40	TBN Standard: 40 mg/g KOH	50g
RETNB70	TBN Standard: 70 mg/g KOH	50g

Laboratory Water



Description	Product No. 5L	Product No. 25L
Purified Water	H2O5	H2O25
Deionised Water	Y00185	Y0018
Water (Analytical Grade)	H2O5AG	H2O25AG
Artificial Seawater	DSW5	DSW25

Synthetic Fresh Water Standards - Water Hardness as CaCO_3

Description	Product No. 5L	Product No. 25L
Synthetic Fresh Water standard 10-13ppm	HSVS1	HSVS5
Synthetic Fresh Water standard 40-48ppm	HSS1	HSS5
Synthetic Fresh Water standard 80-100ppm	HSMH1	HSMH5
Synthetic Fresh Water standard 160-180ppm	HS11	HS15

Standards & Reagents for APHA, AWWA & WEF Test Methods

Test procedures specifically for the examination of a wide spectrum of parameters in water and waste water are published in a volume called Standard Methods. Sample types may include potable/domestic water, surface water, ground water or cooling, circulating, boiler, municipal and waste waters. First published in 1905, Standard Methods is now in its 22nd Edition. It is published jointly by the American Public Health Association (APHA), American Water Works Association (AWWA), and the Water Environment Federation (WEF).

Standard Methods covers a vast array of analytes and properties. Products developed specifically for Standard Methods are listed below, but other stipulated Standards and Reagents can be found in almost every chapter of this catalogue.

Product No.	Description	Pack Size
ALKS042101	Alum Solution 10% w/v	1L
NH4CL041	Ammonium Chloride 0.05M	1L
NH32501	Ammonium Hydroxide 5M	1L
NHMO41	Ammonium Molybdate 4% w/v	1L
NH4C2O41	Ammonium Oxalate 4% w/v	1L
NH4C2O51	Ammonium Oxalate 5% w/v	1L
NH4P301	Ammonium Phosphate 30% w/v	1L
NH4P401	Ammonium Phosphate 40% w/v	1L
NH4P501	Ammonium Phosphate 50% w/v	1L
NHS101	Ammonium Sulfate 10% w/v	1L
NAB11	Borax 1% w/v	1L
CUS0221	Copper Sulfate, CuSO_4 , 2% w/v	1L
PFS1	Ferriin Indicator	100ml
GLYC71	Glycine 7% w/v Aqueous Solution for Ozone	1L
HGN200071	Mercuric Nitrate 0.00705M	1L
PP20002F	Potassium Permanganate 0.01N	1L
SA02F	Sodium Acetate, CH_3COONa , 0.2M	1L
SA2F	Sodium Acetate, CH_3COONa , 2M	1L
SA2005W	Sodium Arsenite, NaAsO_2 , 0.1N	2.5L
N20014W	Sodium Chloride, NaCl , 0.0141M	2.5L
TBO8F	Thymol Blue, 0.08% (w/v) in Methanol	1L
CH3CZN101	Zinc Acetate 10% w/v	1L

Wine Standards & Reagents

Wine & Must Analysis

The Compendium of International Methods of Wine and Must Analysis (edition 2013) includes all test methods, approved by the General Assembly of Representatives of the Member Governments of the OIV (International Organisation of Vine and Wine) up to June 2012. First published in 1962, the European Union now recognises all of the test methods in the Compendium for the testing and control of Viticultural Products. Through its role in harmonising methods of analysis, the Compendium facilitates globalisation within the wine industry and in conjunction with the International Code of Oenological Practices and the International Oenological Codex contains content of enormous scientific value.

Each method of analysis contained within the Compendium, contains considerable detail on the Reagents, Standards, Reference Materials and Analytical Volumetric Solutions required to perform that particular method. We are proud to present throughout this catalogue, the most comprehensive range of products available on the market for Wine and Must Analysis, irrespective of whether the methodology is instrumental or manual. Products developed specifically for Wine and Must analysis are contained in this chapter but products of relevance can be found in almost every part of this catalogue. All products contained herein either match or exceed the specifications laid down in the Compendium. Reagecon has a large department dedicated to the development of Industry Specific Customised products and several additional products are under development for Wine and Must Analysis. We believe the products presented will meet or exceed your expectations, bring scientific rigour to your analytical techniques and offer you real value for money.

Laboratory Reagents & Analytical Volumetric Solutions for the Wine Industry

Product No.	Description	Pack Size
KNAT08861	Alkaline Solution (Potassium Sodium Tartrate) 0,886M	1L
CAOH2M105	Calcium Hydroxide 2M suspension	500ml
CUS11	Copper Sulfate solution 1%	1L
CUS101	Copper Sulfate solution 10%	1L
DEXT0055	Dextrose Solution 0.5%	500ml
NATB46	di-Sodium tetra-Borate 10-hydrate solution 4,6%	100ml
FS0101	Fehlings solution A	1L
FS010105	Fehlings solution A	500ml
FS0102	Fehlings solution B	1L
FS010205	Fehlings solution B	500ml
FOCIRE01	Folin-Ciocalteu's Reagent	100ml
K2SO41	Gypsumetric Liquor . 1 ml corresponds to 0.01 g of K_2SO_4	100ml
H20011	Hydrochloric Acid 0.01M	1L
H20101	Hydrochloric Acid 0.1N	1L
H210G1	Hydrochloric Acid 10 g/l	1L
H21001	Hydrochloric Acid 1M	1L
HCIS115	Hydrochloric Acid-Water solution 50:50	5L
HP0905	Hydrogen Peroxide 0.9% w/v	500ml
HP1005	Hydrogen Peroxide 10% w/v stabilised	500ml
HP1505	Hydrogen Peroxide 15%	500ml
HP25VV05	Phosphoric Acid 25%	500ml

Product No.	Description	Pack Size
HP301	Hydrogen Peroxide 3% w/v	1L
HP305	Hydrogen Peroxide 3% w/v	5L
I2001F	Iodine 0.01M	1L
I2001H	Iodine 0.01M	500ml
I2005F	Iodine 0.05M	1L
I2005H	Iodine 0.05M	500ml
I20031H	Iodine 0.03125M	500ml
KFECN10WV1	Potassium Hexacyanoferrate(II) solution 10% w/v	1L
KOH21001	Potassium Hydroxide 1 mol/l (1N)	1L
KOH20101	Potassium Hydroxide 0.1M	1L
KI20WV1	Potassium Iodide 20% Solution	1L
KI30WV1	Potassium Iodide solution 30% w/v	1L
KT20WV1	Potassium Thiocyanate solution 20% w/v	1L
KT5WV1	Potassium Thiocyanate solution 5% w/v	1L
SCS20WV1	Sodium Carbonate 20%	1L
S20011	Sodium Hydroxide 0.01M	1L
S20021	Sodium Hydroxide 0.02M	1L
S20101	Sodium Hydroxide 0,1 mol/l (0,1N)	1L
S2013321	Sodium Hydroxide 0,1332 mol/l (0,1332N)	1L
S20401	Sodium Hydroxide 0,4 mol/l (0,4N)	1L
S216661	Sodium Hydroxide 1,666 mol/l (1,666N)	1L
S10WV1	Sodium Hydroxide 10%	1L
S10001	Sodium Hydroxide 10M	1L
S201005	Sodium Hydroxide 0.1M	500ml
S20501	Sodium Hydroxide 0.5M	1L
S20251	Sodium Hydroxide 0.25M	1L
S2035461	Sodium Hydroxide 0.35465M	1L
SU33VV1	Sulphuric Acid 1:3 V/V	1L
SU2501	Sulphuric Acid 1:4 V/V	1L
SU20VV1	Sulphuric Acid 1:5V/V	1L
T20021	Sodium Thiosulfate 0.02M	1L
T20101	Sodium Thiosulfate 0.1M	1L
T2005511	Sodium Thiosulphate 0.0551M	1L
T20501	Sodium Thiosulphate 0,5 N	1L
ST105	Starch solution 1%	500ml
ST1001	Starch solution 1%	1L
TISAB-WINE	TISAB for wine analysis (Dir. 2676/90) for the fluoride determination by selective electrodes. pH 5,5±0,1	250ml

Coloured Indicators for the Wine Industry. (further indicators can be found in the section Analytical Volumetric Solutions)

Product No.	Description	Pack Size
TASHI010	Indicator Solution for mixed Sulphur	100ml
BRCG1501	Bromocresol Green, 1% Solution	100ml
BRTH040250	Bromothymol Blue 0.4%	250ml
BRTH05	Bromothymol Blue solution 0.4%	500ml
IPT1025	Phenolphthalein 1%	250ml
MTBLU10250	Methylene Blue 1% Solution	250ml
BRBP05	Indicator Solution Bromophenol Blue, 0.04%	500ml
1063601	Indicator Solution Phenol Red, 0.02%	100ml
1055102	Indicator Solution Methyl Red, 0.02%	100ml

Ethanol Density Standards for calibration of alcoholometers & densimeters in oenology. For more Density Standards please see chapters dedicated to Density.

Product No.	Description	Pack Size
ET08VV025	8.5% v/v Ethanol/Water -- nominal density 0.9883g/ml for calibration of alcoholometers and densimeters in oenology	250ml
ET10VV025	10% v/v Ethanol/Water -- nominal density 0.9865g/ml for calibration of alcoholometers and densimeters in oenology	250ml
ET11VV025	11% v/v Ethanol/Water -- nominal density 0.9853g/ml for calibration of alcoholometers and densimeters in oenology	250ml
ET12VV025	12% v/v Ethanol/Water -- nominal density 0.9891g/ml for calibration of alcoholometers and densimeters in oenology	250ml
ET13VV025	13.5% v/v Ethanol/Water -- nominal density 0.9824g/ml for calibration of alcoholometers and densimeters in oenology	250ml
ET14VV025	14% v/v Ethanol/Water -- nominal density 0.9868g/ml for calibration of alcoholometers and densimeters in oenology	250ml
ET16VV025	16% v/v Ethanol/Water -- nominal density 0.9795g/ml for calibration of alcoholometers and densimeters in oenology	250ml
ET20VV025	20% v/v Ethanol/Water -- nominal density 0.9753g/ml for calibration of alcoholometers and densimeters in oenology	250ml

Brix Standards for the Wine Industry. For further Refractive Index & Brix standards please see chapters dedicated to this subject area.

Product No.	Description (20°C)	Nominal Refractive Index @ 20°C	Pack size
BS149	Sucrose (Brix) Standard - 14.9%	1.355519	15ml
BS194	Sucrose (Brix) Standard - 19.4%	1.362846	15ml
BS238	Sucrose (Brix) Standard - 23.8%	1.370261	15ml

Soil Testing Standards & Reagents

The testing of soil is a large and rapidly growing area within Analytical Science worldwide. A survey published in the USA in 1998 found that about 5 million samples were analysed annually in that country and even then this number was considered an underestimation. When the rapid growth in this area is factored in and the numbers extrapolated on a worldwide basis, soil testing is now a significant component of the work of public, commercial and fertilizer company laboratories in all crop growing areas of the world.

This growth is driven by the need to provide growers with accurate information as an enabler to applying correct and economical quantities of fertilizer, and monitor soil fertility. Secondly it is driven by a requirement that farmers/growers and environmental protectors operate in an environmentally friendly way, thus reducing pollution of food, air, waterways and other amenities.

For soil analysis to be effective and efficient it is vital that testing methodologies are standardized, traceable, comparable and of known measurement uncertainty. A significant recent development has been the acceleration of quality assurance, quality control and the use of proficiency testing in soil testing laboratories. Added to these advances, has been a worldwide proliferation in the numbers of soil laboratories being awarded various certificates and accreditations, e.g. ISO 17025



A pivotal constituent to all of these advances is the availability of high quality Standards (physical and chemical) and Reagents. This catalogue contains the largest selection of products relevant to soil testing available worldwide. The products are presented in three ways. Firstly, they can be accessed in the various catalogue sections, which are categorized on the basis of application. These include standards for metals, anions, conductivity and pH. They also include organic standards for pollutants including Pesticides, Phenols, Volatile Organic Carbons and Polycyclic Aromatic Hydrocarbons as examples.

Secondly, this section covers several Analytical Volumetric Solutions, Indicators, Extraction Solutions and Reagents for various specific soil testing methods. This list is indicative only. Finally Reagecon has the capability, competence, track record and experience to offer an outstanding range of bespoke products for a wide variety of methods relating to soil analysis.

We hope you find the products in this section and the remainder of the catalogue helpful. For quotes or information on additional products contact us at sales@reagecon.ie

Product No.	Description	Pack Size
NHFED01	Ammonium Fluoride-EDTA Stock Reagent	1L
APDC01	APDC Butyl Acetate-Ethanol Reagent	1L
BSE01	Boron Standard in Extraction Reagent	1L
BRAY01	Bray P1 Extracting Reagent Concentrate	1L
BMASK01	Buffer Masking Reagent	1L
CACLSS01	Calcium Chloride Stock Solution	1L
CACL20011	Calcium Chloride, CaCl ₂ , 0.01M	1L
CTA01	Chromotopic Acid Solution (CTA)	1L
CUES01	Copper Standard in Extracting Reagent	1L
CUZN01	Copper-Zinc Standard	1L
DTPAE01	DTPA Extraction Reagent Concentrate	1L
DTPA00051	DTPA Solution, 0.005M	1L
H26001	Hydrochloric Acid, HCl, 6N	1L
FEE01	Iron Standard in Extraction Reagent	1L
LACS01	Lanthanum Compensating Solution	1L
LIWS01	Lithium Working Solution, 130.14ppm	1L
MGCLS01	Magnesium Chloride Stock Solution	1L
MGERS01	Magnesium Standard in Extracting Reagent	1L
ICCB07	Magnesium Standard in Water, Mg, 1000ppm	500ml
MNES01	Manganese Standard in Extracting Reagent	1L
MEHL101	Mehlich #1 Extracting Reagent	1L
MEHL301	Mehlich #3 Final Extraction Reagent	1L
MEHLBS01	Mehlich Buffer Solution	1L
MEHLBE01	Mehlich-Bowling Extracting Reagent	1L
MOREXT	Morgan Extraction Reagent	25L
SOILSP01	MS Soil Spike Standard	1L
SOILSPS01	MS Spike Sample Standard #2 (For Soil)	1L
NIES01	Nickel Standard in Extraction Reagent	1L
NNER01	Nitrate-Nitrogen Extracting Reagent	1L
NNS01	Nitrate-Nitrogen Standard	1L
NER01	Nitrogen Standard in Extracting Reagent	1L
OLSER01	Olsen's Extraction Reagent concentrate	1L
OLSMR01	Olsen's Mixed Reagent	1L
KCR267F	Potassium Dichromate Reagent, 0.267N	1L
SMPB01	SMP Buffer Solution	1L
NACLSS01	Sodium Chloride Stock Solution	1L
NASER01	Sodium Standard in Extraction Reagent	1L
SPISL01	Spiking Solution for Water and Soil	1L
SRCL201	Strontium Chloride Diluting Solution	1L
MEHLS01	Sulfuric-Molybdate Solution (Mehlich #1)	1L

Pulp & Paper Standards & Reagents

Pulp & Paper Process Testing

Reagecon offers the largest range of Reagents, Standards and Analytical Volumetric Solutions available in the market place for this important and heavily regulated industry. These products facilitate savings in time and money and offer traceability, comparability and convenience. A large part of the pulp and paper process industry uses Standard Test Methods developed through an organisation called TAPPI (Technical Association of the Pulp and Paper Industry).

TAPPI Standards may be in the form of Test Methods or other documents that include specifications, guidelines and practices. These are available from the organisation as a compendium for a wide range of physical, organic and inorganic analyses using manual and instrumental techniques. Tolerances and guidelines are provided for all Reagents and Standards specified and Reagecon matches or exceeds these tolerances in all cases. Products listed in most sections of this catalogue are relevant to pulp and paper process testing. This section contains a range of products developed specifically for TAPPI methods.

A list of Reagecon part numbers that are cross referenced to each TAPPI method is available upon request.

Reagecon manufacture the following standards and reagents for use in the Pulp & Paper industry.

Product No.	Description	Pack Size
CH3C00H201	Acetic Acid, CH ₃ COOH, 20% v/v	1L
WTR041	Barium Chloride, BaCl ₂ , 10% w/v	1L
WTR061	Barium Chloride, BaCl ₂ , 12% w/v	1L
WTR081	Barium Chloride, BaCl ₂ , 20% w/v	1L
H2051671	Hydrochloric Acid, HCl, 0.5167M	1L
H207331	Hydrochloric Acid, HCl, 0.773M	1L
H25VVJ	Hydrochloric Acid, HCl, 25% v/v	2.5L
3001500 EP	Hydrochloric Acid, HCl, 6N	1L
KI10WV1	Potassium Iodide, KI, 10% w/v	1L
PP2002F	Potassium Permanganate, KMnO ₄ , 0.02M	1L
N201709F	Silver Nitrate 0.1709N 0.1709M	1L
N20250F	Silver Nitrate, AgNO ₃ , 0.25M	1L
S20011	Sodium Hydroxide, NaOH, 0.01M	1L
S203131	Sodium Hydroxide, NaOH, 0.313M	1L
T20101	Sodium Thiosulfate, Na ₂ S ₂ O ₃ , 0.1M	1L
T20201	Sodium Thiosulfate, Na ₂ S ₂ O ₃ , 0.2M	1L
T21001	Sodium Thiosulfate, Na ₂ S ₂ O ₃ , 1M	1L
SU2012751	Sulfuric Acid, H ₂ SO ₄ , 0.1275M	1L
SU222001	Sulfuric Acid, H ₂ SO ₄ , 4N	1L

Dairy Standards & Reagents

Analytical tests to evaluate dairy products cover a wide variety of materials of different chemical and physical composition. These include products that contain milk in either dilute or concentrated format, various consistencies ranging from liquid to solid and in some instances products that have several non dairy products added.

Because of this variety the fitness for purpose aspect in selecting the most appropriate methodology is critical. Method selection will also depend on whether the test is being carried out for regulatory or compliance reasons, for quality control, quality assurance, food safety, or product stability purposes.



Reagecon manufactures a wide range of Physical and Chemical Standards that are appropriate to the testing of dairy products. Several of these products, which are specific or unique to the dairy industry, are listed in this section. Several others relating to the measurement of pH, Conductivity, Refractive Index, Density, Metals and Anions are listed under the appropriate headings elsewhere in this catalogue.

Standards and reagents relevant to the measurement of vitamins, food additives, preservatives, colours, flavours, fragrances, sugars and sanitisation residues/by-products are currently under development. Updates on this development pipeline can be tracked and viewed at www.reagecon.com.



Reagents & Standards for the Dairy Industry

Product No.	Description	Pack Size
SUFMT5	Gerber Test Sulphuric Acid FMT d. 1.815-1.825	5L
SUFMT25	Gerber Test Sulphuric Acid FMT d. 1.815-1.825	25L
SUFMTJ	Gerber Test Sulphuric Acid FMT d. 1.815-1.825	2.5L
BOA25	Kjeldahl Reagent 2% w/v Boric Acid solution without indicator	5L
S30WW5	Kjeldahl Reagent 30% w/w (40% w/v) Sodium Hydroxide	5L
S30WWLN	Kjeldahl Reagent 30% w/w (40% w/v) Sodium Hydroxide	5L
KJR015	Kjeldahl Reagent 4% w/v Boric Acid solution with indicator	5L
BOA4	Kjeldahl Reagent 4% w/v Boric Acid solution without indicator	5L
ST840	Kjeldahl Reagent 40% w/v Sodium Hydroxide/8% Sodium Thiosulphate	25L
ST841	Kjeldahl Reagent 40% w/v Sodium Hydroxide/8% Sodium Thiosulphate	5L
WTR045	Kjeldahl Reagent Barium Chloride solution 10% w/v	5L
BOAI225	Kjeldahl Reagent Boric Acid 2% with indicator - 25L	25L
BOA3310	Kjeldahl Reagent Boric Acid 3.3% solution	10L
PFS1	Ferrou Indicator solution	100ml
FEA25	Iron Alum (Volhard) Indicator solution	250ml
MTR05025	Methyl Orange Indicator Alcoholic solution 0.1%	250ml
IPT01H	Phenolphthalein Indicator Solution 0.1%	500ml
IPT05F	Phenolphthalein Indicator Solution 0.5%	1L
IPT05W	Phenolphthalein Indicator Solution 0.5%	2.5L
IPT10H	Phenolphthalein Indicator Solution 1%	500ml
IPT10W	Phenolphthalein Indicator Solution 1%	2.5L
IPT1025	Phenolphthalein Indicator Solution 1%	250ml
IPT16W	Phenolphthalein Indicator Solution 1.6%	2.5L
PCS5	Potassium chromate, 5% Indicator solution	500ml
TB04F	Thymol Blue Indicator Alcoholic Solution 0.04%	500ml
NPD03	Phosphatase Test 4-Nitrophenyl Di-Sodium Phosphate	12 x 0.15g
NPD04	Phosphatase Test Carbonate Bi-Carbonate Buffer	12 x 2.5g
CH3CN501	Acetonitrile CH ₃ CN, 50% v/v	1L
BAB2O41	Barium Borate-Hydroxide Buffer	1L
BAOH011	Barium Hydroxide Ba(OH) ₂ , 0.1N	1L
BOR0091	Borax Buffer, 0.00996M	1L
BUT7051	n-Butanol CH ₃ (CH ₂) ₂ CH ₂ OH, 7.5% v/v	1L
CUS051	Copper Sulfate CuSO ₄ , 0.05%	1L
CUS11	Copper Sulfate CuSO ₄ , 1%	1L
CUSSOLA	Copper Sulfate Solution B 72.5g/L	1L
CUSSOLB	Copper Sulfate Solution A 440.9mg Cu/25ml	1L
FESO41	Ferrous Sulfate Solution FeSO ₄	1L
PBA101	Lead Acetate Solution (CH ₃ COO) ₂ Pb, 10%	1L
PB00574	Phosphate Buffer, 0.05M pH 7.4	1L
EFSKNO	Potassium Nitrate KNO ₃ , 10% w/v	100ml
PP500F	Potassium Permanganate KMnO ₄ , 5% w/v	1L
S2WW1	Sodium Hydroxide, NaOH, 2% w/v	1L
ZS601	Zinc Sulfate, ZnSO ₄ , 6% w/v	1L

Cryoscope Standards



The concentration of solute in a liquid solvent, effects several colligative properties of the combined solution, one of which is its Freezing Point. The Freezing Point of milk depends on this phenomenon and milk in its unadulterated state has a freezing point below 0°C. As milk is diluted with water, the freezing point moves closer to that of pure water (0°C). This elevation of freezing temperature is due mainly to reduction in concentration of lactose and inorganic salts, due to the addition of water. The reduced concentration of biological materials such as fats, proteins or other solids are not thought to contribute to the freezing point elevation.

Historically, from a regulatory and practical perspective freezing point value is considered the optimum method for determining the presence of added water in either raw or treated milk. Economically, the addition of water to milk either accidentally or deliberately by producers, or at any other point in the process chain has a profound adverse effect on the milk or milk derivatives industry. The measurement has formed the basis of an official method that dates back to at least 1923 and has become established as a scientific discipline called Cryoscopy. Dating back to the 1950's several manufacturers of Cryoscopes have offered their products in the market place. Such instruments are usually very accurate and precise. Like all scientific instruments, Cryoscopes require calibration and control and in some situations method validation and instrument qualification. Due to our extensive knowledge of metrology and our unequalled number of accreditations, Reagecon offers a range of high quality Standards to facilitate these objectives. The range on offer is completed by the availability of Heat Transfer Fluid.

Product benefits include;

- NIST traceability
- Extremely high accuracy
- Extended shelf life
- High quality, easy to use, secure packaging
- Products manufactured and certified for use on all Cryoscopes compliant to International Reference Standard ISO5764/IDF108 for the determination of Freezing Point in milk

Product No.	Description	Pack Size
MTR03525	Cryoscope Standard -0.577°C (577m°H)	250ml
MTR01025	Cryoscope Standard 0.000°C	250ml
MTR02025	Cryoscope Standard -0.408°C (422m°H)	250ml
MTR03025	Cryoscope Standard -0.512°C (530m°H)	250ml
MTR04025	Cryoscope Standard -0.600°C (621m°H)	250ml
CRYBL	Cryoscope Bath Liquid	500ml
HTF250	Heat Transfer Fluid	250ml

United States Pharmacopoeia Solutions



Summary of Features & Benefits:

Commercial Benefits

- Reduce preparation time
- Free up resources for core activities
- Save valuable bench space

Technical Benefits

- Produced in accordance with USP methods
- Consistency of product - Independent, Traceable, Certified
- Certificates of Analysis and Safety Data Sheets available online

Reagecon is pleased to announce a new range of USP ready to use solutions. These solutions have been developed as part of our on-going Research and Development program. These USP solutions, which are only available from a small number of manufacturers, bring you multiple benefits that include:

- Significant reduction in the amount of time and expense required to prepare Test Solutions
- Ensure consistency of products (independent, traceable Certificates of Analysis)
- Produced according to relevant Pharmacopoeia requirements - no deviation in materials or methodology
- Manufactured with controlled processes and batch certified to ensure lot-to-lot consistency and reproducibility of results. Such benefits give you the assurance and peace of mind that in-house preparations cannot provide

For USP products not listed below, please contact us at sales@reagecon.ie



Description	Product No. 100 ml	Product No. 500ml
Acetate Buffer TS Conforms to USP 35	USP0101	USP0105
Acetic Acid, 2.00 Normal Conforms to USP 35	USP0201	USP0205
Acetic Acid-Ammonium Acetate Buffer TS Conforms to USP 35	USP0301	USP0305
Ammonia-Ammonium Chloride Buffer TS Conforms to USP 35	USP0401	USP0405
Ammonium Carbonate TS Conforms to USP 35	USP0601	USP0605
Ammonium Chloride TS Conforms to USP 35	USP0701	USP0705
Ammonium Chloride-Ammonium Hydroxide TS Conforms to USP 35	USP0801	USP0805
Ammonium Thiocyanate TS Conforms to USP 35	USP0901	USP0905
Barium Chloride TS/RS Conforms to USP 35	USP1001	USP1005

Description	Product No. 100 ml	Product No. 500ml
Barium Nitrate TS Conforms to USP 35	USP1101	USP1105
Bromate-Bromide Solution, 0.1N Conforms to USP 35	USP1201	USP1205
Bromocresol Green TS Conforms to USP 35	USP1301	USP1305
Bromocresol Purple TS Conforms to USP 35	USP1401	USP1405
Bromophenol Blue TS Conforms to USP 35	USP1501	USP1505
Bromothymol Blue TS Conforms to USP 35	USP1601	USP1605
Calcium Sulfate TS Conforms to USP 35	USP1701	USP1705
Congo Red TS Conforms to USP 35	USP1901	USP1905
Cupric Acetate TS Conforms to USP 35	USP2001	USP2005
Cupric Citrate TS Conforms to USP 35	USP2101	USP2105
Cupric Sulfate TS Conforms to USP 35	USP2201	USP2205
Dichlorofluorescein TS Conforms to USP 35	USP2301	USP2305
Edetate Disodium TS Conforms to USP 35	USP2401	USP2405
Ferric Ammonium Sulfate TS Conforms to USP 35	USP2601	USP2605
Ferric Chloride TS Conforms to USP 35	USP2701	USP2705
Glycerin Base TS Conforms to USP 35	USP2801	USP2805
Hydrochloric Acid, 1N Conforms to USP 35	USP2901	USP2905
Iodine (Iodine-Iodide), 0.1N Conforms to USP 35	USP3001	USP3005
Lead Acetate TS Conforms to USP 35	USP3101	USP3105
Mercuric Chloride TS Conforms to USP 35	USP3301	USP3305
Methyl Orange Indicator Conforms to USP 35	USP3401	USP3405
Methyl Red TS 2 Conforms to USP 35	USP3501	USP3505
Methyl Red-Methylene Blue Soln Conforms to USP 35	USP3601	USP3605
Methylene Blue TS Conforms to USP 35	USP3701	USP3705
Neutral Red TS Conforms to USP 35	USP3801	USP3805
Oxalic Acid TS Conforms to USP 35	USP3901	USP3905
Perchloric Acid, 0.1N Conforms to USP 35	USP4001	USP4005
Phenol Red TS Conforms to USP 35	USP4101	USP4105
Phenolphthalein TS/RS Conforms to USP 35	USP4201	USP4205
Phloroglucinol TS Conforms to USP 35	USP4301	USP4305
Phosphotungstic Acid TS Conforms to USP 35	USP4401	USP4405
Potassium Acetate TS Conforms to USP 35	USP4501	USP4505
Potassium Carbonate TS Conforms to USP 35	USP4601	USP4605
Potassium Iodide TS Conforms to USP 35	USP5101	USP5105
Potassium Permanganate, 0.1N Conforms to USP 35	USP5201	USP5205
Potassium Sulfate TS Conforms to USP 35	USP5301	USP5305
Resorcinol TS Conforms to USP 35	USP5401	USP5405
Silver Nitrate, 0.1N Conforms to USP 35	USP5501	USP5505
Sodium Acetate TS Conforms to USP 35	USP5601	USP5605
Sodium Chloride Conforms to USP 35	USP5701	USP5705
Sodium Hydroxide, 1N Conforms to USP 35	USP5801	USP5805
Sodium Thiosulfate, 0.1N (N/10) Conforms to USP 35	USP5901	USP5905
Sulfanilic Acid TS, Conforms to USP 35	USP6001	USP6005
Sulfuric Acid, 1N Conforms to USP 35	USP6101	USP6105
Thymol Blue TS/RS Conforms to USP 35	USP6201	USP6205
Zinc Sulfate, 0.05M Conforms to USP 35	USP6301	USP6305
Diluted Alcohol (50/50 Alcohol Water) Conforms to USP 35	USP6401	USP6405
Ammonia (Ammonium Hydroxide) TS Conforms to USP 35	USP6501	USP6505
Methyl Red TS Conforms to USP 35	USP6601	USP6605

Colouration Reagents as outlined in the United States Pharmacopeia can be seen in the Colour Standards Chapter of this catalogue.

European Pharmacopoeia Solutions

Reagecon, as a specialist manufacturer of laboratory reagents has now introduced the range of Reagents and Standard solutions in Chapters 2 and 4 of the current Ph. Eur. All are manufactured and tested in compliance with the Ph. Eur. and are supplied with a Certificates of Analysis. Lot No. and expiry date are stated on all product labels

Reagents as outlined in Chapter 4 (4.1.1) of Ph. Eur.

Product No.	Description	Pack Size
1000401	Acetic Acid (30%)	1L
1000402	Acetic Acid, Dilute (12%)	1L
1000501	Acetic Anhydride Solution R1	1L
1002501	Alcohol, Aldehyde Free	1L
1004702	Ammonia Dilute, R1	1L
1004703	Ammonia Dilute, R2	1L
1005201	Ammonium Carbonate Solution	1L
1005703	Ammonium Molybdate Solution R2	1L
1007301	Anisaldehyde Solution	100ml
1007302	Anisaldehyde Solution	100ml
1009301	Barium Chloride Solution	1L
1009401	Barium Hydroxide Solution	1L
1011601	Biuret Reagent	1L
1012601	Bromocresol Green Solution	100ml
1012602	Bromocresol Green-Methyl Red Solution	100ml
1012701	Bromocresol Purple Solution	100ml
1012801	Bromophenol Blue Solution	100ml
1012803	Bromophenol Blue Solution R2	100ml
1012901	Bromothymol Blue Solution R1	100ml
1015201	Calcium Sulphate Solution	1L
1022001	Congo Red Solution	1L
1022002	Congo Red Paper	100pk
1022901	Crystal Violet Solution	100ml
1023100	Cupri-Citric Solution	1L
1023300A	Cupri-Tartaric Solution 1	500ml
1023300B	Cupri-Tartaric Solution 2	500ml
1032101	Diphenylamine Solution	1L
1032102	Diphenylamine Solution R1	1L
103110101	Dimidium Bromide Disulphine Blue Mixed Indicator	100ml
1037702	Ferric Ammonium Sulphate Solution R2	1L
1038100	Ferrioin	100ml
1039101	Formaldehyde Solution	100ml
1039401	Fuchsin Solution, Decolourised	100ml
1039402	Fuchsin Solution, Decolourised R1	100ml
1043101	Holmium Perchlorate Solution	1L
1043501	Hydrochloric Acid R1	1L
1043503	Hydrochloric Acid Dilute	1L

Reagents as outlined in Chapter 4 (4.1.1) of Ph. Eur.

Product No.	Description	Pack Size
1043504	Hydrochloric Acid, Dilute R1	1L
1045901	Iodine Bromide Solution	1L
1046300	Iodoplatinate Reagent	200ml
1048001	Lanthanum Nitrate Solution	1L
1048101	Lead Acetate Cotton	10g
1048102	Lead Acetate Paper	pk50
1048103	Lead Acetate Solution	1L
1052101	Mercuric Bromide, Paper	pk50
1053601	Methoxyphenylacetic Reagent	100ml
1054801	Methyl Orange Mixed Solution	100ml
1054802	Methyl Orange Solution	100ml
1055101	Methyl Red Mixed Solution	100ml
1055102	Methyl Red Solution	100ml
1056801	Mordant Black II Triturate	100g
1056700	Molybdovanadic Reagent	100ml
1057601	Naphtolbenzein Solution	100ml
1058201	Nile Blue A Solution	100ml
1058303	Ninhydrin Solution	100ml
1058304	Ninhydrin Solution R1	100ml
1058305	Ninhydrin Solution R2	100ml
1058402	Nitric Acid Dilute	100ml
1062901	Perchloric Acid Solution	100ml
1063601	Phenol Red Solution	100ml
1063603	Phenol Red Solution R2	500ml
1063702	Phenolphthalein Solution	100ml
1063703	Phenolphthalein Solution R1	100ml
1065000	Phosphomolybdotungstic Reagent	100ml
1065200	Phosphotungstic Acid Solution	100ml
1065801	Picric Acid Solution	100ml
1065802	Picric Acid Solution R1	100ml
1069101	0.1M Potassium Chloride	1L
1069201	Potassium Chromate Solution	1L
1069501	Potassium Dichromate Solution	1L
1069801	Potassium Ferrocyanide Solution	100ml
1070001	0.2M Potassium Hydrogen Phthalate	1L
1070302	0.5M Potassium Hydroxide in Alcohol (10% v/v)	1L
1070303	Potassium Hydroxide Solution, Alcoholic	100ml
1070501	Potassium Iodide and Starch Solution	125ml
1070502	Potassium Iodide Solution	1L
1070504	Potassium Iodide Solution Saturated	500ml
1070600	Potassium Iodobismuthate Solution	100ml
1070602	Potassium Iodobismuthate Solution R2	100ml
1070902	Potassium Permanganate Solution	1L
1071301	Potassium Pyroantimonate Solution	125ml
1071600 A+B	Potassium Tetraiodomercurate Solution (alkaline A+B)	100ml
1075201	Ruthenium Red Solution	100ml
1078301	Silver Nitrate Solution R1	1L
1078302	Silver Nitrate Solution R2	1L
1079301	Sodium Carbonate Solution	1L
1081401	Sodium Hydroxide Solution	1L
1081402	Sodium Hydroxide Solution	1L
1081404	Sodium Hydroxide Solution, Strong	1L
10816005	Sodium Hypochlorite Solution, Strong	500ml

Reagents as outlined in Chapter 4 (4.1.1) of Ph. Eur.

Product No.	Description	Pack Size
1083901	Sodium Sulphide Solution	100ml
1085001	Stannous Chloride Solution	100ml
1085103	Starch Solution	100ml
1086804	Sulphuric Acid Dilute	1L
1088600	Tetramethylammonium Hydroxide Solution	1L
1089602	Thioacetamide Solution	1L
1090701	Thymolphthalein Solution	1L
1094201	Tris (Hydroxymethyl) Aminomethane Solution	100ml
1095502	Carbon Dioxide Free Water	1L
1096601	Zinc Chloride - Formic Acid Solution	1L
1096602	Zinc Chloride Solution Iodinated	1L
1102301	Zinc Acetate Solution	1L

Volumetric Solutions as outlined in Chapter 4 (4.2.2) of Ph. Eur.

Product No.	Description	Pack Size
3000100	0.1M Ammonium and Cerium Nitrate	1L
3000200	0.01M Ammonium and Cerium Nitrate	1L
3000300	0.1M Ammonium and Cerium Sulphate	1L
3000500	0.1M Ammonium Thiocyanate	1L
3000600	0.1M Barium Chloride	1L
3000900	0.004M Benzethonium Chloride	1L
3001100	0.1M Cerium Sulphate	1L
3001300	0.1M Ferric Ammonium Sulphate	1L
3001500	6M Hydrochloric Acid	1L
3001700	2M Hydrochloric Acid	1L
3001800	1.0M Hydrochloric Acid	1L
3002100	0.1M Hydrochloric Acid	1L
3002700	0.05M Iodine	1L
3002900	0.01M Iodine	1L
3003100	0.1M Lead Nitrate	1L
3003300	0.1M Lithium Methoxide	1L
3003500	0.02M Mercuric Nitrate	1L
3003900	0.1M Perchloric Acid	1L
3004200	0.033M Potassium Bromate	1L
3004800	0.1M Potassium Hydroxide	1L
3004900	0.5 M Potassium Hydroxide in Alcohol (60% v/v)	1L
3005000	0.5M Potassium Hydroxide, Alcoholic	1L
3005100	0.1M Potassium Hydroxide, Alcoholic	1L
3005300	0.02M Potassium Permanganate	1L
3005600	0.1M Silver Nitrate	1L
3005800	0.1M Sodium Arsenite	1L
3005900	0.1M Sodium Edetate	1L
3006300	1.0M Sodium Hydroxide	1L
3006600	0.1M Sodium Hydroxide	1L
3007000	0.1M Sodium Hydroxide, Ethanolic	1L
3007100	0.1M Sodium Methoxide	1L
3007200	0.1M Sodium Nitrite	1L
3007300	0.1M Sodium Thiosulphate	1L
3007800	0.5M Sulphuric Acid	1L
3008000	0.05M Sulphuric Acid	1L
3008300	0.1M Tetrabutylammonium Hydroxide	1L
3008400	0.1M Tetrabutylammonium Hydroxide in 2-propanol	1L
3008600	0.1M Zinc Sulphate	1L

Volumetric Solutions as outlined in Chapter 4 (4.2.2) of Ph. Eur.

Product No.	Description	Pack Size
3008700	1M Cupriethylenediamine Hydroxide Solution	1L
3008800	0.1M Hydrochloric Acid, Alcoholic	1L
3009100	1M Potassium Hydroxide	1L
3009300	0.001M Silver Nitrate	1L

Buffer Solutions as outlined in Chapter 4 (4.1.3) of Ph. Eur.

Product No.	Description	Pack Size
4000100	Buffered Acetone Solution	1L
4000600	Buffer Solution pH 3.5	1L
4000700	Phosphate Buffer Solution pH 3.5	10L
4001400	Acetate Buffer Solution pH 4.6	1L
4002400	Phosphate Buffer Solution pH 6.0	1L
4004800	Phosphate Buffer Solution pH 7.4	1L
4007200	Ammonium Chloride Buffer Solution pH 9.5	1L
4007300	Ammonium Chloride Buffer Solution pH 10.00	1L
4008300	Buffer (Phosphate) solution pH 9.00	1L
4013300	Phosphate Buffer Solution pH 8.5	5L

Standard Solutions for Limit Tests as outlined in Chapter 4 (4.1.2) of Ph. Eur.

Product No.	Description	Pack Size
5000200	Aluminium Standard Solution (200ppm Al)	100ml
5000300C	Concentrate to make Ammonium Standard Solution 100ppm as NH_4	100ml
5000302C	Concentrate to make Ammonium Standard Solution (1ppm NH_4)	100ml
5000500C	Concentrate to make Arsenic Standard Solution (10ppm as As)	100ml
5000700	Cadmium Standard Solution (0.1% Cd)	100ml
5000800C	Concentrate to make Calcium Standard Solution (400ppm Ca)	100ml
5000802C	Concentrate to make (5000802) Calcium Standard Solution (100ppm Ca) Alcoholic	100ml
5000900C	Concentrate to make Chloride Standard Solution (8ppm Cl)	100ml
5001000	Chromium Standard Solution (100ppm Cr)	1L
5001100	Copper Standard Solution (0.1% Cu)	100ml
5001200C	Concentrate to make Ferrocyanide Standard Solution (100ppm Fe CN_6)	100ml
5001400C	Concentrate to make Fluoride Standard Solution (100ppm F)	100ml
5001600C	Concentrate to make Iron Standard Solution (20ppm Fe)	100ml
5001602C	Concentrate to make Iron Standard Solution (8ppm Fe)	100ml
5001700	Lead Standard Solution (0.1% Pb)	100ml
5001701C	Concentrate to make Lead Standard Solution (100ppm Pb)	100ml
5001800C	Concentrate to make (5001800) Magnesium Standard Solution (100ppm Mg)	100ml
5002000C	Concentrate to make Nickel Standard Solution (10ppm Ni)	100ml
5002102C	Concentrate to make Nitrate Standard Solution (2ppm NO_3)	100ml
5002200C	Concentrate to make Phosphate Standard Solution (5ppm PO_4)	100ml
5002400C	Concentrate to make (5002400) Potassium Standard Solution (100ppm K)	100ml
5002500	Selenium Standard Solution (100ppm Se)	1L
5002700C	Concentrate to make (5002700) Sodium Standard Solution (200ppm Na)	100ml
5002800C	Concentrate to make Sulphate Standard Solution (10ppm SO_4)	100ml
5003401C	Concentrate to make (5003401) Zinc Standard Solution (100ppm as Zn)	100ml

Colouration Reagents as outlined in the European Pharmacopoeia can be seen in the Colour Standards Chapter of this catalogue.

Buffered Eluents

Summary of Features & Benefits:

Commercial Benefits

- Reduce sample preparation time
- Focus on core activities
- Ensure Consistency of product
- Free up valuable Laboratory Space
- Achieve peace of mind

Technical Benefits

- Produced in accordance with USP
- Consistency of product - Independent, Traceable, Certified
- Certificates of Analysis and Safety Data Sheets available online

Reagecon is pleased to announce a new range of Ready to Use Buffered Eluents for Liquid Chromatography. The control of Mobile Phase pH, when analysing ionisable compounds using HPLC is well recognised. There is also a substantial body of literature supporting the use of pH control when working with field samples of non-ionisable compounds due to the presence of ionisable impurities or contaminants. The use of Reagecon's high quality buffer systems will minimise variations of mobile phase pH, leading to dramatically improved selectivity, retention factor, peak shape, resolution and reproducibility. These Buffered Eluents, which are not available from any other manufacturer, bring you multiple benefits that include:

- Significant reduction in the amount of time and expense required to prepare them in house - "lean labs"
- Produced according to relevant Pharmacopoeia requirements - no deviation in materials or methodology
- Manufactured under controlled processes and batch certified to ensure lot-to-lot consistency and reproducibility of results

Reagecon has selected 19 of the most commonly recommended buffering systems from scientific literature and from the currently published 2,400 monographs of the USP, these are listed below. However, there are several hundred other buffering systems contained in the monographs and we are happy to quote for these also. The products presented are suitable for use as buffering systems in either solvent or aqueous mobile phases.

Description	Product No. 500ml	Product No. 1L
pH 2- 6.8g/L Monobasic Potassium Phosphate	USP8005	USP801
pH 2.5-0.01M Phosphoric Acid and 0.01M Monobasic Sodium Phosphate	USP8105	USP811
pH 2.5 - Monobasic Potassium Phosphate	USP8205	USP821
pH 3 - Monobasic Potassium Phosphate	USP8305	USP831
pH 3.5 - Monobasic Sodium Phosphate	USP8405	USP841
pH 4 - Monobasic Potassium Phosphate	USP8505	USP851
pH 4.5 - Sodium Acetate Trihydrate	USP8605	USP861
pH 4.5 - Monobasic Potassium Phosphate	USP8705	USP871
pH 5 - Monobasic Potassium Phosphate	USP8805	USP881
pH 5.5 - Monobasic / Dibasic Potassium Phosphate	USP8905	USP891
pH 6 - Monobasic Potassium Phosphate	USP9005	USP901
pH 6.5- Monobasic Potassium Phosphate	USP9105	USP911
pH 6.8 - Monobasic Potassium Phosphate	USP9205	USP921
pH 6.8 - Monobasic Potassium Phosphate / Dibasic Sodium phosphate	USP9305	USP931
pH 7 - Monobasic Potassium Phosphate / Dibasic sodium phosphate	USP9405	USP941
pH 7 - Monobasic Potassium Phosphate / Sodium Hydroxide	USP9505	USP951
pH 7.5 - Monobasic Potassium Phosphate	USP9605	USP961
pH 7.5 - Dibasic Potassium/ Monobasic Sodium Phosphate	USP9705	USP971
pH 8 - Monobasic Sodium Phosphate/ Disodium Hydrogen Phosphate	USP9805	USP981

Dissolution Media - Concentrates



Summary of Features & Benefits:

Commercial Benefits

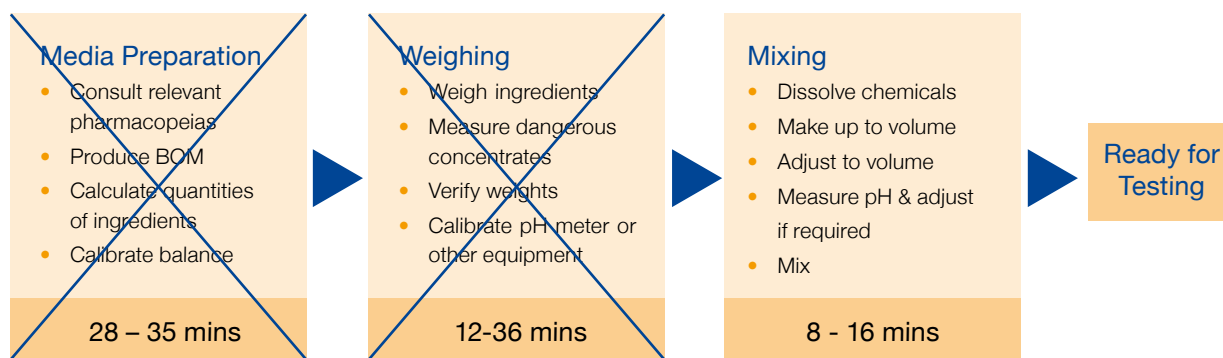
- Reduce preparation time
- Free up resources for core activities
- Save valuable bench space

Technical Benefits

- Consistency of product
- Full regulatory & labelling compliance
- Certificates of Analysis & Safety Data Sheets available online

Reagecon has added a new range of Dissolution Media Concentrates to its manufactured product portfolio.

With Reagecon's dissolution media concentrates you take out all preparation steps up to the final mixing, simply add purified water and mix, allowing you to run your dissolution test without delay and at a reduced cost.



Save valuable time per batch!

Allow Reagecon to offer you major savings and improved efficiencies in your dissolution testing by having products which are:-

- Prepared according to relevant pharmacopoeia requirements
- Without deviations on materials and methodology from pharmacopoeia
- Guaranteed Accuracy and Stability
- 2 year Shelf Life
- Certificates of Analysis and Safety Data Sheets available online
- Consistency of Product, Independent, Traceable, Certified

Product No.	Compliant Pharm	Concentration	Pack Size
Potassium Phosphate pH 5.8			
DBC01-230	USP & Ph.Eur.	230.8ml of conc. dilutes to 6L	12 x 250ml concentrates
DBC01-250	USP & Ph.Eur.	250ml of conc. dilutes to 10L	12 x 250ml concentrates
DBC01-960	USP & Ph.Eur.	961.5ml of Conc. dilutes 25L	6 x 1L concentrates
Potassium Phosphate pH 6.0			
DBC02-230	USP & Ph.Eur.	230.8ml of conc. dilutes to 6L	12 x 250ml concentrates
DBC02-250	USP & Ph.Eur.	250ml of conc. dilutes to 10L	12 x 250ml concentrates
DBC02-960	USP & Ph.Eur.	961.5ml of Conc. dilutes 25L	6 x 1L concentrates
Potassium Phosphate pH 6.8			
DBC03-230	USP & Ph.Eur.	230.8ml of conc. dilutes to 6L	12 x 250ml concentrates
DBC03-250	USP & Ph.Eur.	250ml of conc. dilutes to 10L	12 x 250ml concentrates
DBC03-960	USP & Ph.Eur.	961.5ml of Conc. dilutes 25L	6 x 1L concentrates
Potassium Phosphate pH 7.2			
DBC04-230	USP & Ph.Eur.	230.8ml of conc. dilutes to 6L	12 x 250ml concentrates
DBC04-250	USP & Ph.Eur.	250ml of conc. dilutes to 10L	12 x 250ml concentrates
DBC04-960	USP & Ph.Eur.	961.5ml of Conc. dilutes 25L	6 x 1L concentrates
Potassium Phosphate pH 7.5			
DBC05-230	USP & Ph.Eur.	230.8ml of conc. dilutes to 6L	12 x 250ml concentrates
DBC05-250	USP & Ph.Eur.	250ml of conc. dilutes to 10L	12 x 250ml concentrates
DBC05-960	USP & Ph.Eur.	961.5ml of Conc. dilutes 25L	6 x 1L concentrates
Acetate Buffer pH 4.5			
DBC06-230	USP & Ph.Eur.	230.8ml of conc. dilutes to 6L	12 x 250ml concentrates
DBC06-250	USP & Ph.Eur.	250ml of conc. dilutes to 10L	12 x 250ml concentrates
DBC06-960	USP & Ph.Eur.	961.5ml of Conc. dilutes 25L	6 x 1L concentrates
Sodium Lauryl Sulphate 0.50%			
DBC07-400	USP	400ml of conc.dilutes to 6L	12 x 400ml concentrates
DBC07-500	USP	500ml of conc. Dilutes to 10L	12 x 500ml concentrates
Potassium Phosphate pH 7.4			
DBC08-230	USP & Ph.Eur.	230.8ml of conc. dilutes to 6L	12 x 250ml concentrates
DBC08-250	USP & Ph.Eur.	250ml of conc. dilutes to 10L	12 x 250ml concentrates
DBC08-960	USP & Ph.Eur.	961.5ml of Conc. dilutes 25L	6 x 1L concentrates
Sodium Phosphate pH 6.8			
DBC09-230	USP	230.8ml of conc. dilutes to 6L	12 x 250ml concentrates
DBC09-250	USP	250ml of conc. dilutes to 10L	12 x 250ml concentrates
DBC09-960	USP	961.5ml of Conc. dilutes 25L	6 x 1L concentrates
Hydrochloric Acid 0.01N			
DBC10-230	USP & Ph.Eur.	230.8ml of conc. dilutes to 6L	12 x 250ml concentrates
DBC10-250	USP & Ph.Eur.	250ml of conc. dilutes to 10L	12 x 250ml concentrates
DBC10-960	USP & Ph.Eur.	961.5ml of Conc. dilutes 25L	6 x 1L concentrates
Hydrochloric Acid 0.1N			
DBC11-230	USP & Ph.Eur.	230.8ml of conc. dilutes to 6L	12 x 250ml concentrates
DBC11-250	USP & Ph.Eur.	250ml of conc. dilutes to 10L	12 x 250ml concentrates
DBC11-960	USP & Ph.Eur.	961.5ml of Conc. dilutes 25L	6 x 1L concentrates

Dissolution Media - Ready To Use



Summary of Features & Benefits:

Commercial Benefits

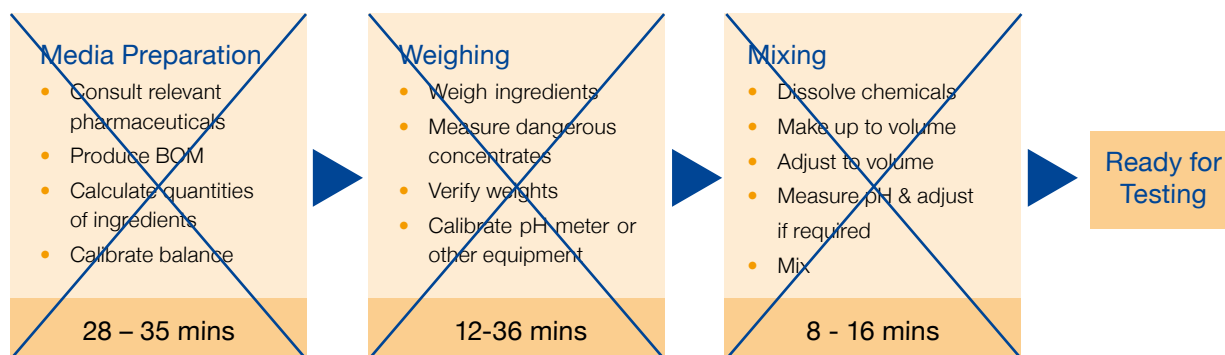
- Reduce preparation time
- Free up resources for core activities
- Save valuable bench space

Technical Benefits

- Consistency of product
- Full regulatory & labelling compliance
- Certificates of Analysis & Safety Data Sheets available online

Reagecon has added a new range of Ready to Use Dissolution Media to its manufactured product portfolio.

Reagecon's dissolution media eliminates all preparation steps allowing you to run your dissolution test without delay and at a reduced cost.



Save valuable time per batch!

Allow Reagecon to offer you major savings and improved efficiencies in your dissolution testing by having products which are:-

- Prepared according to relevant pharmacopoeia requirements
- Without deviations on materials and methodology from pharmacopoeia
- Guaranteed Accuracy and Stability
- 2 year Shelf Life
- Certificates of Analysis and Safety Data Sheets available online
- Consistency of Product, Independent, Traceable, Certified

Product No.	Product Description	Compliant Pharmacopoeia	Pack Size
DB10-121	Hydrochloric Acid 0.01N	USP & Ph.Eur.	12 x 1L
DB11-121	Hydrochloric Acid 0.1N	USP & Ph.Eur.	12 x 1L
DB06-121	Acetate Buffer pH 4.5	USP & Ph.Eur.	12 x 1L
DB01-121	Potassium Phosphate pH 5.8	USP & Ph.Eur.	12 x 1L
DB02-121	Potassium Phosphate pH 6.0	USP & Ph.Eur.	12 x 1L
DB03-121	Potassium Phosphate pH 6.8, R	USP & Ph.Eur.	12 x 1L
DB04-121	Potassium Phosphate pH 7.2	USP & Ph.Eur.	12 x 1L
DB08-121	Potassium Phosphate pH 7.4	USP & Ph.Eur.	12 x 1L
DB07-121	Sodium Lauryl Sulphate 0.50%	USP	12 x 1L
DB12-121	Simulated Gastric Fluid, without enzyme	USP & Ph.Eur.	12 x 1L
DB13-121	Simulated Intestinal Fluid, without Enzyme	USP & Ph.Eur.	12 x 1L
DB14-121	1st Dissolution Fluid	JP	12 x 1L
DB15-121	2nd Dissolution Fluid	JP	12 x 1L
DB16-121	Acetate Buffer pH 5.5	Ph.Eur.	12 x 1L
DB17-121	Acetate Buffer pH 5.8	Ph.Eur.	12 x 1L



Analyst Qualification Sets

Summary of Features & Benefits:

Commercial Benefits

- Proof of competence for individual analysts
- Extensive range of test materials available
- More cost effective than Laboratory based Proficiency Schemes
- Enhanced audit compliance
- Ready to Use

Technical Benefits

- Uncertainty of measurement clearly defined
- NIST Traceable where applicable
- Consistency of product - Independent, Traceable, Certified
- Certificates of Analysis and Safety Data Sheets available online

Traditionally laboratories have used Proficiency Schemes to provide evidence of their competence. Now with tightening audit requirements auditors from compliance and accreditation bodies are increasingly asking for evidence that each analyst in a laboratory is competent to carry out individual analytical tests. Proficiency Schemes are not a cost effective way of meeting this requirement and method witnessing or working with known samples are of limited value.

Reagecon now provides a new approach to proving analyst competency for a range of common laboratory tests. We will provide a set of unknown samples (detailed below) with password protected, online access to our ISO 17025 accredited test results of the samples. This allows Laboratory Managers to provide their analysts with “blind” samples and to cost effectively assess the competency of each individual analyst on a specific test. The assurance provided by the use of blind samples and independent ISO 17025 accredited testing in turn allows the Laboratory Manager to meet all external auditors’ “proof of competency” requirements.

The unknown samples in the Reagecon range are prepared gravimetrically on a weight/weight basis from high purity raw materials. Both solute and solvent are weighed on a balance calibrated by Reagecon engineers using OIML traceable weights. Reagecon holds ISO 17025 accreditation for calibration of laboratory balances (INAB ref: 265C). The resulting Balance Certificate of Calibration is issued in accordance with the requirements of ISO/IEC 17025.



Test Materials (choose any six to make a set)

Product No.	Description	Concentration	Pack size
AQSPH001	Low Range pH @ 20°C	pH range 1 to 5	250ml
AQSPH002	Medium Range pH @ 20°C	pH range 5.1 to 8	250ml
AQSPH003	High Range pH @ 20°C	pH range 8.1 to 11	250ml
AQSPH004	Low Range pH @ 25°C	pH range 1 to 5	250ml
AQSPH005	Medium Range pH @ 25°C	pH range 5.1 to 8	250ml
AQSPH006	High Range pH @ 25°C	pH range 8.1 to 11	250ml
AQSCL001	Chloride Content Low	Chloride Range 0.01M to 0.49M	250ml
AQSCL002	Chloride Content Medium	Chloride Range 0.5M to 1.9M	250ml
AQSCL003	Chloride Content High	Chloride Range 2.0M to 4.0M	250ml
AQSA001	Acid Content Low	Acid Range 0.025M to 0.5M	250ml
AQSA002	Acid Content Medium	Acid Range 1.0M to 2.9M	250ml
AQSA003	Acid Content High	Acid Range 3.0M to 10M	250ml
AQSB001	Base Content Low	Base Range 0.05M to 0.99M	250ml
AQSB001	Base Content Medium	Base Range 1.0M to 3.0M	250ml
AQSB001	Base Content High	Base Range 3.1M to 10M	250ml
AQSCON001	Conductivity Ultra Low	Conductivity Range 1.3µS/cm to 50µS/cm	250ml
AQSCON002	Conductivity Low	Conductivity Range 80µS/cm to 1,000µS/cm	250ml
AQSCON003	Conductivity Medium	Conductivity Range 1,100µS/cm to 10,000µS/cm	250ml
AQSCON004	Conductivity High	Conductivity Range 100,000µS/cm to 500,000µS/cm	250ml
AQSDEN001	Density @ 20°C Low	Density Range 0.7g/ml to 0.95g/ml	250ml
AQSDEN002	Density @ 20°C High	Density Range 1.1g/ml to 2.8g/ml	250ml
AQSBRIX001	Brix Low	Sucrose (Brix) Range 5% to 19%	15ml
AQSBRIX002	Brix Medium	Sucrose (Brix) Range 20% to 34%	15ml
AQSBRIX003	Brix High	Sucrose (Brix) Range 35% to 60%	15ml
AQSOSM001	Osmolality Low	Osmolality Range 50mOsm/kg to 350mOsm/kg	5ml
AQSOSM002	Osmolality Medium	Osmolality Range 351mOsm/kg to 999mOsm/kg	5ml
AQSOSM003	Osmolality High	Osmolality Range 1,000mOsm/kg to 3,000mOsm/kg	5ml
AQSTOC001	TOC Ultra Low	TOC Range 0.5ppm to 10ppm	35ml
AQSTOC002	TOC Low	TOC Range 11ppm to 100ppm	35ml
AQSTOC003	TOC Medium	TOC Range 101ppm to 500ppm	35ml
AQSMP001	Melting Point	Melting point Range 40°C to 240°C	1g
AQSICP001	ICP - Multi-Element (7 Elements)	Concentration Range 1ppm to 1,000ppm	100ml
AQSICP002	ICP - Multi-Element (19 Elements)	Concentration Range 1ppm to 1,000ppm	100ml

Cleaning Solutions

Reagecon offer ready-to-use cleaning solutions, which eliminate the need for diluting solutions in-house, together with the associated risks of handling strong oxidizers. These products save you time and money.

Summary of Features & Benefits:

- Pre-prepared and ready to use
- Certificates of Analysis available online
- Safety Data Sheets available online

Sodium Hypochlorite Solutions

Recommended for general disinfection of laboratory equipment and apparatus, including benches, sinks, floors and contact surfaces (not stainless steel)

- Sanitization of production areas and processing equipment
- As effective as Chlorine Gas
- Easily Stored and transported

Product No.	Description	Pack size
SHO5WV5	0.5% Sodium Hypochlorite	5L
SH5WV5	5% Sodium Hypochlorite	5L

Isopropanol Cleaning Solutions

Ideal for cleaning and decontaminating lab surfaces, production areas and processing equipment

Product No.	Description	Pack size
IP375	37% IPA / 63% H ₂ O Solution	5L
IP70WV05	70% IPA / 30% H ₂ O Solution in a Trigger Spray bottle	500ml
IP70WV1	70% IPA / 30% H ₂ O Solution in a Trigger Spray bottle	1L
IP70WV5	70% IPA / 30% H ₂ O Solution	5L
IP70WV10	70% IPA / 30% H ₂ O Solution	10L



Reagecon

Physical & Chemical Standards



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