

Ready to Manage Reactions?

Innovative Solutions for Efficient
and Simplified Chemical Analysis

Simplifying Progress

SARTORIUS

Chemical & Consumer Care: Getting The Chemistry Right

Increasing productivity and quality while saving time. Efficient, eco-friendly and economical solutions are key to lasting success in a constantly changing market driven by innovations and regulations. Effective processes that meet all requirements must be designed carefully from the very beginning to end.

We are here to simplify. Easy-to-handle and quick-to-clean meets highest durability and resilience. With flexible, modular and versatile products we help you drive innovation and adapt to new trends, technologies or regulations in your pursuit of sustainable chemistry – doing more with less. Whether in research, process development or quality control our innovation can help you achieve stability, safety and efficacy every step of the way.

Focus Industries

Bulk Chemicals

Your lab environment can be tough. When working with hazardous liquids and volatile samples, laboratories need to be able to rely on robust and reliable lab tools and testing equipment that offers highest chemical resistance while ensuring safety for lab technicians. Whether polymers derived from petroleum, other petrochemicals, organics or inorganics, our high-performance corrosion-resistant instrumentation and chemically compatible consumables simplify routine chemical analysis and testing.



Fine & Specialty Chemicals

We understand how important purity, accuracy and reliability are for you so that your fine or specialty chemicals always meets the highest standards and regulatory requirements. But standard is not enough. You can count on our support in applications across research, development and quality control with premium instruments, consumables and services that will help simplify and optimize your lab workflows, so that your finished product has just the chemical and physical properties that are required for further processing.



Cosmetics and Personal Care Products

Increasingly savvy consumers expect naturally derived, safe, and environmentally friendly products to enhance their personal well-being and they also expect measurable effects based on science and technology. You need to be able to rely on a partner who can help you achieve this with every challenge you face in your R&D, in process and quality control procedures, who guarantees short response times and service with the highest level of competence. With product and consumer safety top of the list, your brand is safeguarded.



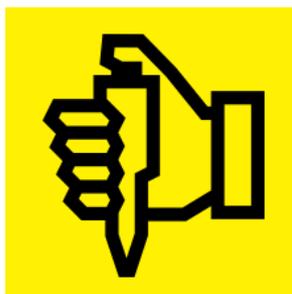
Focus Applications

Sartorius products address various applications in the chemical industry and offer a variety of solutions for routine workflows.



Chemical Composition Analysis

- Sample Prep for Impurity Testing
- Moisture Determination
- Density Testing
- Particulate Matter Analysis
- Residue on Ignition
- Process, Ground and Waste Water Analysis



Sample Preparation for Analytical Testing

- HPLC, GC-MS, and ICP-MS
- Wet Chemistry



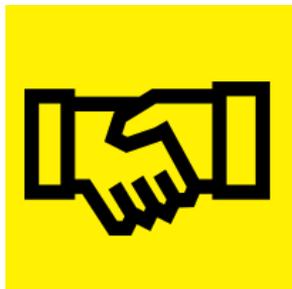
Microbiological Testing

- Process Water Testing- Bioburden
- Air Monitoring
- Microbial Limits Testing- Raw Material & Finished Goods



Data Analytics

- Design of Experiments and Quality by Design
- Multivariate Data Analysis
- Real-time Process Monitoring



Service & Support

- Workflow Integration
- Connectivity
- Preventive Maintenance
- Calibration



Chemical Composition Analysis

Today, customers want chemicals to be produced safely and sustainably with minimal impact on the environment, so quality is a high priority. As a scientist, you want to ensure that your chemicals are stable, pure, safe, and effective. To do that you need sustainable, robust laboratory products and protocols that help you generate precise, reproducible, and traceable results, to ensure your chemicals meet required regulatory guidelines and product specifications.

Sample Prep for Impurity Testing

Challenges Faced:
Eliminating sources of contamination and compromised results during the sample preparation and testing processes.

Your Needs:
Highest quality ASTM Type 1 ultrapure water supplied on demand for ghostpeak-free analysis and reproducible results. Accurate, dependable and ergonomic liquid handling tools for safe, effective and contamination-free product sampling.

Moisture Determination

Challenges Faced:
Measuring a variety of different sample types and matrices accurately and reproducibly in both production and quality control environments according to accepted testing norms.

Your Needs:
Ability to measure a wide variety of chemicals and raw materials safely, quickly and efficiently for moisture content and in accordance with accepted laboratory norms (ex. ASTM, AOAC).





Particulate Matter Analysis

Challenges Faced:

Developing nanoparticle-based biological agents requires the monitoring of several quality attributes including binding affinity, kinetics and stability.

Your Needs:

Nanoparticles, independent of their size, can be monitored using Octet® systems providing label-free biomolecular interaction analysis. These fluidics-free, low maintenance and sensitive systems increase lab productivity, reduce costs, and shorten experimental timelines.

Density Testing

Challenges Faced:

Measuring highly viscous samples and materials (densities greater than 3 g/cm³) that cannot be analyzed using traditional density meters.

Your Needs:

Fast, accurate and cost-effective density or specific gravity measurements of liquids or solids.

Residue on Ignition

Challenges Faced:

Time-consuming and labor intensive workflows associated with residue on ignition testing can result in errors and inaccurate results.

Your Needs:

Fast, intuitive and user-friendly balances guide you through the weighing process to provide consistently reliable results for residue on ignition analysis.

Process, Ground & Wastewater Analysis

Challenges Faced:

Working with heavy particle-laden samples in high throughput batch analysis (10L or more) challenges filtration workflows as well as the ability to detect heavy metals and chlorine in water.

Your Needs:

Easy to use filter combinations with high flowrates and optimal particle retention for fast, easy and consistent measurement of water samples to confirm quality control standards are being met and upheld.





Sample Preparation for Analytical Testing

To ensure your chemicals meet the highest safety, stability and efficacy standards, you need to perform analytical testing on your incoming raw ingredients, during intermediate production steps, as well as before final release. This helps you determine the levels of impurities and potentially toxic or hazardous compounds that may be present.

Challenges Faced:

Preparation of samples and standards can be tedious but are a must for accurate, consistent and reliable results. Avoiding blockage and maintaining the sensitivity of HPLC columns, mitigating false positive peaks, background noise and leachables from equipment or consumables.

Your Needs:

The right tools for the job. Consistent baselines and fewer ghost peaks using Arium® ultrapure water. Semi-automatic preparation and documentation of highly reproducible HPLC calibration standards with Cubis® MSA Dosing System. Verified concentrations for all standards are confirmed and captured with 100% compliance to SOPs. Comfortable and accurate pipetting with Picus® and Tacta®, effortless and simultaneous filtering of up to 8 HPLC samples with Claristep® or samples with special properties or low volumes with Minisart® syringe filters. Great sample prep, great results.





Microbiological Testing

To minimize contamination risks with your chemicals you need to know which microorganisms are lurking in your water, production, filling and packaging areas. Introducing microbes at any stage in your process may cause changes in your chemicals leading to poor quality and making them unstable, ineffective, or even unsafe to use in specific applications.

Water Process Testing - Bioburden

Challenges Faced:

Ensuring contaminant-free process water for consumer and personal care goods production.

Your Needs:

Ease and convenience with simple set-up and handling with the Microsart® filters, manifolds and pumps offers effective and efficient detection of potentially pathogenic or spoilage microbes in process water.

Microbial Limits Testing - Raw Materials & Finished Goods

Challenges Faced:

Easy, Fast and convenient protocols for adherence to USP <61> for Microbial Limit Testing.

Your Needs:

User friendly consumables such as Microsart® @filter combine a transparent funnel, filter base and a gridded membrane for reliable detection of microorganisms in your samples.

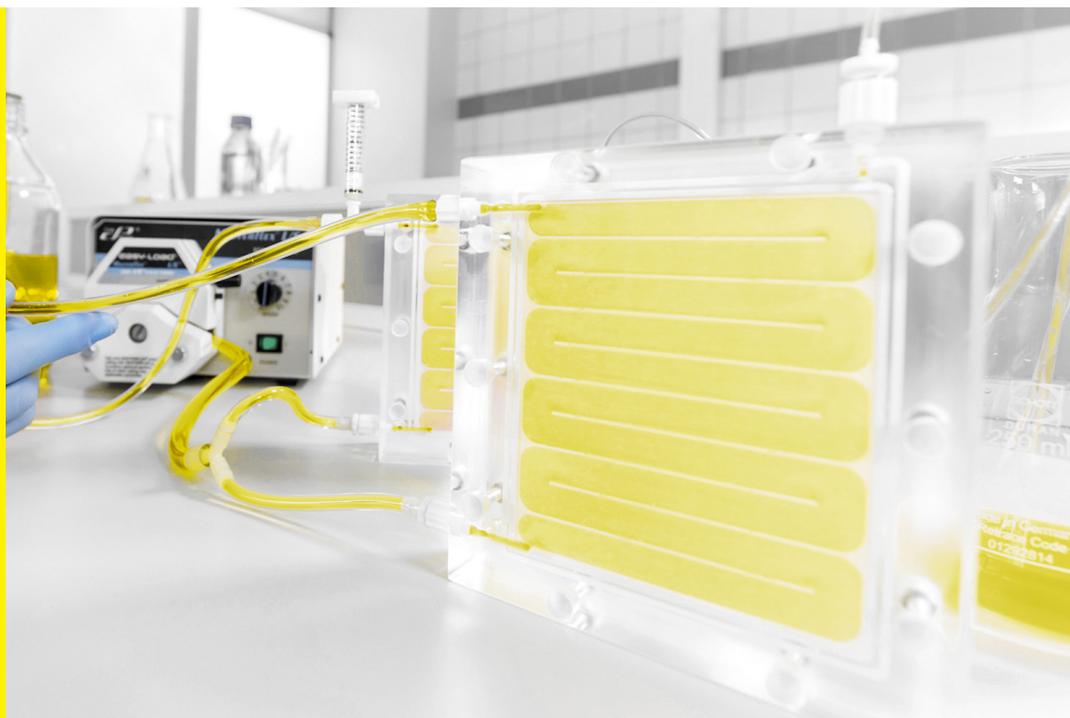
Air Monitoring

Challenges Faced:

Efficient and safe monitoring of environments to ensure safety of workers and finished products from contamination by microorganisms

Your Needs:

MD8 Airport Air Samplers for early detection of airborne microorganisms that could contaminate or interfere with production of consumer and personal care products.



Product Overview

Innovative Solutions for Efficient and Simplified Chemical Analysis

Discover the variety of product solutions Sartorius offers for the applications in your chemical process.

Application	Product	Application	Product
Sample Prep for Immunity Testing	Cubis® II Ultra Micro & Micro Balances MCA2.7S and MCA10.6S	Sample Preparation for HPLC, GC-MS and ICP-MS	Arium® Mini Ultrapure Water Systems
	Arium® Mini Ultrapure Water Systems		Arium® Pro Ultrapure Water Systems
	Arium® Pro Ultrapure Water Systems		Tacta® Pipettes
	Tacta® Pipettes		Optifit Tips
	Bottle Top Dispensers		Safe Cone Filters
	Optifit Tips		Minisart® Filters
	Paper Filters		Claristep® Filters
	Safe Cone Filters		Membrane Filters
	Filter Holders		MSA Dosing Standard Buffer Preparation
	Membrane Filters		
Moisture Determination	MA160 Moisture Analyzer	Sample Preparation for Wet Chemistry	Cubis® MSA Dosing System
	LMA100 Mark 3 Moisture Analyzer		Arium® Pro DI Water Systems
	Cubis® II Semi-Micro/Analytical MCA		Arium® Pro Ultrapure Water Systems
	Tacta® Pipettes		
	Optifit Tips		
	Safe Cone Filters		
Particulate Matter Analysis	Cubis® II Ultra Micro & Semi Micro MCA 2.7S & MCA10.6S	Water System Testing - Bioburden	Minisart® Filters
	Octet Systems		Octet® Systems
	Glass Fiber Filters		Microsart® Manifold
	Track-Etched Filters		Octet® Systems
	Microsart® Manifold		Microsart®@filter
Density Testing	Microsart® e.jet Pump	Microsart®@media	
	Filtration Membranes	Microsart® ejet Pump	
		Label-Free Biosensors	
Residue on Ignition	Cubis® II Analytical and Semi Micro (with Qapp). MCA Package with Backweighing Program, QP2 Package)	Microbial Limits Testing - Raw Materials & Finished Goods	Microsart®@filter
	Cubis® II Analytical and Semi Micro (with Qapp). QP2 Package. Ashless Filter Paper		Octet® Systems
Process, Ground and Waste Water Analysis	Safe Cone Filters		Microsart® Manifold
	Sartolab® RF50 Vacuum Filter		Microsart® @media
	Vivaflow® (for concentrating)		Tacta® Pipettes
	Entris® II Standard & Basic Balances	Label-Free Biosensors	
	Filtration Membranes		
	Proline® and Proline® Plus Pipettes		
	Minisart® Filters		
Air Monitoring	MD8 AirPort	Data Analytics	MODDE® Design of Experiments Software
			SIMCA® Multivariate Data Analysis Software
			SIMCA®-online Real-Time Process Monitoring Software

Service

Whatever your product, you expect reliable, accurate and reproducible results test after test.

Smoothly running processes, minimum down time and compliance with your industry standards are your concerns. Our solution is to provide premium laboratory equipment that performs at its best day after day. Our expert service offering will keep your instrumentation in tip top condition.

We offer a global network of service and support, with trained experts and scientists to help you. We can assist you with certified and accredited services covering calibration, technical questions, software updates and repairs when you need them, allowing you to focus on quality and maximize the output of your analytical lab.



Data Analytics

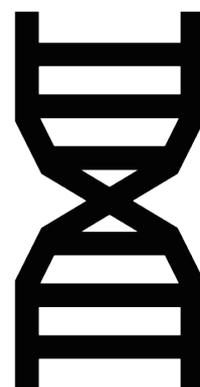
Data analytics allows you to keep full control over your processes from raw material to finished product. Speed-up and make your incoming goods analysis even more accurate with multivariate data analysis (MVDA) to find sub-standard or adulterated materials right at the beginning. With information gained you can also finetune production steps to accommodate for slight variations in material properties. Real-time process control based on models created with MVDA will let you to detect and correct deviations from the ideal production process even before any operator notices that something is going wrong and so to avoid upsets and lost batches.

New product development bears several risks, apart from finding the right product that consumers expect or favor, speed to market and cost are also to be considered. Data analytics helps to find the right recipe, optimized towards all these factors, also providing best compromises in case of conflicting goals. In addition, it will help you scale up your production from lab via pilot to full production scale, minimizing disruption and quality problems caused through changes in volumes and other parameters.

We provide analytical software with regular updates which helps you accurately and rapidly analyze large data sets from your production and analytical lab tests, ensuring your cosmetics and personal care ingredients and final products are stable, safe, and effective, as well as comply with the required regulatory standards for cosmetics and personal care products.

Sustainability

Sustainability is an integral part of our corporate strategy and one of our corporate values. To us, it means operating responsibly over the long term –with respect to customers, employees, investors, business partners and society as a whole. Likewise, it entails handling natural resources responsibly. Good health and well-being are at the core of our business.



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