



Bioprocessing Media and Buffers

Grow With Us

Simplifying Progress

SARTORIUS

Experience

*"Highly Experienced Media Specialists
to Respond Efficiently to Your Media
and Buffer Needs"*

- Leading position in single-use applications including fluid management, filtration and fermentation technologies
- Pioneer in state-of-the-art micronization high-quality powder production process and fermentation technologies
- Robust QC | QA oversight Risk minimization approach

Industry Leader
50 years of culture media experience backed by 150 years of pharma industry innovations

Transparency
Sharing experiences to bring added value and fit-for-purpose products

- ISO certification with successful audit track record following Current Good Manufacturing Practices 21CFR820
- Media Optimization Expertise And Custom Production Services tailored to your needs
- Excellent regulatory dossier support

SARTORIUS

Florenz Sartorius mechanical workshop is founded

Sartorius starts commercial-scale manufacturing of membrane filters

Sartorius is founded as the original manufacturer of EVA plastic bags for total parenteral nutrition

Stedim creates the market for bag systems used in biopharmaceutical manufacturing processes

1870

1922

1948

1970

1974

1979

1990

1994

Foundation of Lonza AG Electricity Works

Microbiological associates

Whittaker Bioproducts: BioWhittaker Media

Grand opening of the Walkersville facility in Maryland, USA

Initial manufacture of liquid media in Verviers, Belgium, EU



Sartorius acquires Vivascience	Sartorius acquires B. Braun Biotech	Sartorius Stedim Biotech is established by the reverse merger of Sartorius AG's Biotech division into Stedim	Sartorius acquires Wave Biotech	Sartorius acquires TAP Biosystems	Sartorius acquires IntelliCyt and ViroCyt	Sartorius acquires Essen BioScience	Sartorius acquires Danaher and Nosasep's chromatography process equipment division	Sartorius acquires BIA separation
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1999 2000 2007 2008 2013 2016 2017 2020 2021 **SARTORIUS**

Acquisition of Cambrex Bioscience division by Lonza

Complete offering with complementary product lines to solve all your bioprocessing needs

Flexibility to Meet Your Growing Needs



Research

Development

Pre-Clinical

Phase I

Phase II

“Sartorius offers a wide array of Liquid | Powder media and buffer solutions scalable from clinical trials to commercialization”

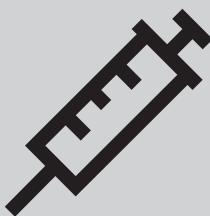
Proteins



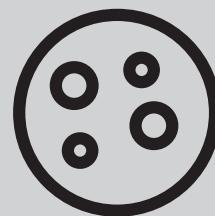
Antibodies



Vaccines



Cell Therapy





Pilot

Manufacture

Phase III

Commercial



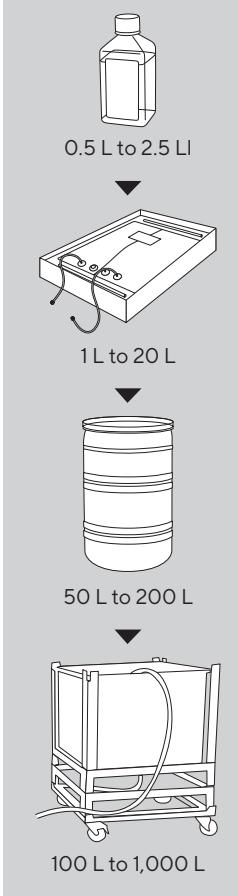
Liquid: 1 to 10,000 L / per batch
Powder: 7 to 7,000 Kg



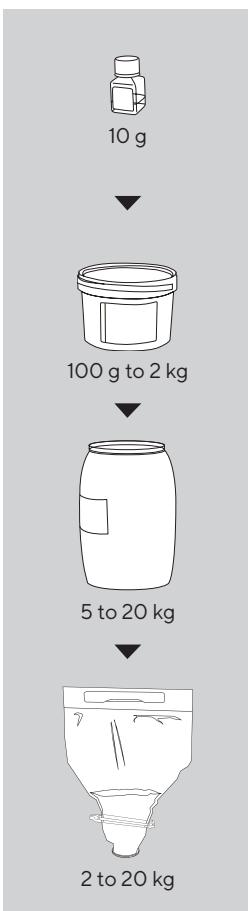
Dual ISO-Certified** Manufacturing
Sites on two different continents



Features	Benefits
Wide range of primary and secondary packaging	Fit your product and package to your process
Off-the-shelf to fully customized solutions	Full product lifecycle support from bench to blockbuster
Formulation options include AO NAO*, Serum-free, protein-free with full traceability	Unrivaled support of your regulatory dossier requirements



Liquid



Powder

* NAO: Non Animal Origin or Animal-Derived-Component Free

** ISO9001:2015 and 13485:2012 producing according to cGMP21CRF820 guideline

Complete Solution Optimized by Our Experts

Full Range of Quality Media

Off-the-shelf or Custom

- **Wide range of Cell Culture Media and Buffers available in liquid | powder in preferred packaging**
- **Early Stage Offering: Cell Line Development and Media Selection**
High Quality and performance proven serum-free formulations
- **Media Optimization**
Support for screening of commercially available standard offerings or personalized dedicated support (CHOOptimizer®)
- **Fast and Clean Pilot Offering:**
Expedited production option for liquid and powders using same raw material sourcing as our large scale manufacturing

Powder Media...

Pioneering powder media manufacturing techniques for optimal product: high solubility, batch consistency, and performance.

...and Buffers

Available in a range of sizes as sterile-filtered Liquids or in modern pre-mesured powder formats



One Point of Contact, One Stream Solution

Features

Benefits

Media and buffers in Sartorius bags

Qualified Film and Assurance of Supply

All Media Filtered through Sartopore® 2 family of proprietary Filters

High level of Scale Up success and Quality

Pre-weighed Powder Media and Buffers in bags and liners

Innovative and Cost-Effective solution for Media Preparation

Products fully integrated into the Sartorius upstream and downstream solutions

One Single point of contact for all Project Needs

Media Specialists Expertise

- Dedicated Media Specialists for your Media and Buffer needs
- Worldwide presence
- Experience in Process Optimization and Buffer usage
- Use of Innovative toolbox to meet your requirements



Media Optimization Service

- Design Media and Feeds suitable for your needs
- Support via DoE approach and quality attribute results analysis
- Link with R&D expertise



Powder in Bags

Innovative Solution of pre-mixed Buffer and Media compatible with Sartorius Mixing Systems



Fully Integrated Into Your USP | DSP Process

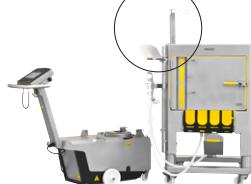
Cell Culture Media

Media and Feeds in optimal packaging adapted to your needs

USP | DSP Elements Processing Path

A Media Solution to Fit Your Cell Line, Schedule and Budget

Media | Buffer Preparation



ProMixer®



Flexact® Modular



Sterile Filtration



Flexsafe® Bag

Pre-Clinical

Media



Polishing



Storage



Flexact® Modular



UF | DF

Flush | Equilibration buffers

Wash | Flush | Sanitize | Diafiltration buffers

Cell Culture Media

Media and Feeds in optimal packaging adapted to your needs



Upstream Process



Biostat® B, RM, UniVessel



Biostat STR®



Sartobind®



Low-pH Virus Inactivation

Feeds

Wash | Equilibration | Elution buffers

pH Adjustments buffers



Filling



Freezing

Dilution | Stabilization buffers



Sterile Filtered Media and Buffers in Sartorius Bags

Ready-to-use solution connectable to your Upstream and Downstream equipment

Cell Growth Media
Buffers

Global Facilities

For more information about our collaboration and for a complete list of our offices worldwide, please visit
www.sartorius-stedim.com/media-buffer



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Specifications subject to change without notice.
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