

Custom liquid products for downstream bioprocessing

Leading the way in solution manufacturing

More choice and more control over your processes, with powerful combinations for your most demanding downstream bioprocessing needs

Whether you're working in pilot- or large-scale manufacturing, having greater choice and control over your processes has never been simpler. Our extended range of bioprocess solutions includes the powerful combination of industry-standard bioprocess containers, common solutions and buffers, with exceptional services for all of your downstream processing needs.

- Product continuity—speed to market is crucial for success; with our integrated global locations for supply security, we have proactively planned for the future, helping to ensure long-term supply and minimize production interruptions (such as for validation) for you.
- **Consistency**—we provide the utmost lot-to-lot consistency with our high-quality liquids in high-quality bioprocess containers (BPCs) that meet your specifications.



During downstream purification, multiple buffers and solutions are needed throughout the process. We offer products for:

- Harvest/clarification/centrifugation
 - Equilibration/flush
- Ultrafiltration/microfiltration
 - Equilibration
 - Diafiltration
 - Cleaning
 - Cartridge storage
- Filtration
 - Equilibration/flush
- Final formulation
- Column chromatography—affinity, ion exchange (IEX), hydrophobic interaction (HIC), mixed mode, size exclusion, and more
 - Dilution and neutralization
 - Packing and column qualification
 - Precharge
 - Equilibration
 - Intermediate/secondary washes
 - Elution
 - Stripping/cleaning
 - Sanitization
 - Storage

We provide a wide range of common and custom formulations. Following you'll find an example list of our standard buffers and process liquids.*



Formulations and packaging can be customized to meet your needs.

Buffer and process liquid examples*	
Acetic acid	PBS/DPBS
Ammonium sulfate	Sodium acetate
Citrate buffer	Sodium bicarbonate
Glucose/sucrose	Sodium chloride
EDTA	Sodium citrate
Ethanol (Grand Island site only)	Sodium hydroxide
Glycine	Sodium phosphate
HEPES/MOPS	Sodium sulfate
Histidine	Tris/Bis-Tris
Hydrochloric acid (Grand Island site only)	WFI

For buffer packaging**, consider one of our standard and stocked Thermo Scientific™ BioProcess Container (BPC) offerings:

Standard/stocked BPC volumes	
1 L	
5 L	
10 L	
20 L	
50 L (top & bottom drain)	
100 L (top & bottom drain)	
200 L (top & bottom drain)	
500 L (top & bottom drain)	
1,000 L (top & bottom drain)	

^{**} Custom designs and sizing are also available.

^{*} The list shows typical products and is not comprehensive for all capabilities; feasibility review required for all new inquiries.

Leverage Doe & Ingalls capabilities

Manage your bulk liquids and resins supply, storage, and logistics, and streamline your chemical supply chain through robust offerings.



Key services:

- cGMP-compliant storage
- Management of change
- Palletizations
- Cold storage
- · Order management and logistics
- · Custom labeling and barcoding
- Returnable container fleet management
- Sampling
- And more

Key products:

- Acids and bases
- Biological buffers
- Excipients
- Media
- Salts
- Solvents
- Sugars
- And more

More locations to serve your needs

Access high-quality solutions and expert support services from any of our global facilities.

Grand Island, New York

United States of America +(1) 800-955-6288 custommedia@thermofisher.com

Paisley, Scotland

United Kingdom +44 141 8146100 eucustommedia@thermofisher.com

We offer reliable manufacturing to serve each step in your process development:

- Non-GMP prototyping
- GMP for scale-up

Support

For service and technical support, go to thermofisher.com/bioprocessliquids or call toll-free in the US: 1.800.831.6844.

For the latest service and support information at all locations, or to obtain Certificates of Analysis or Safety Data Sheets (SDSs; also known as MSDSs), go to **thermofisher.com/support**, or contact your local Thermo Fisher Scientific representative.

