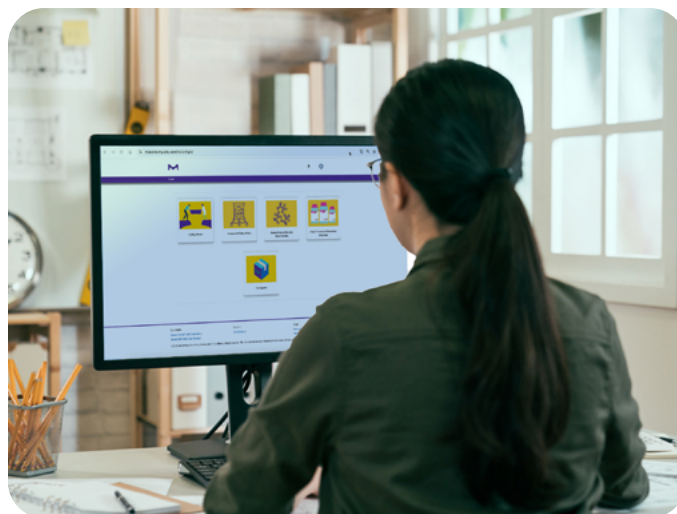# mConfig™ Cell Culture Media and Chemicals Configurator

Custom cell culture media and process chemicals are essential for successful pharma and biopharma manufacturing, yet obtaining these products can be challenging due to manual and iterative request systems with long cycle times.

The complexity of raw and starting materials can make it difficult to select the right component for each stage of manufacturing. In addition, a lack of awareness of alternative components that could improve certain properties of a custom cell culture media may hinder progress. Moreover, sharing proprietary cell culture media formulations or process chemical compositions may raise confidentiality concerns.

A convenient solution that provides easy, online access and technical guidance for custom cell culture media and process chemicals while ensuring data is protected offers many benefits.

Efficient Formulations Management and Consultative Recommendations

The mConfig™ Cell Culture Media and Chemicals Configurator simplifies requesting custom cell culture media and process chemicals through a secure web browser connection for direct review by our manufacturing team. The software enables you to easily manage your custom product setup requests, whether placing a request that is an adaptation of an earlier request or creating a completely new custom product definition. The mConfig™ tool supports requests for new pre-GMP imMEDIAte Advantage® small-scale samples, new manufacturing-scale GMP custom media products, as well as the setup of custom process chemical products.

Leveraging Merck's raw material R&D expertise, the mConfig™ Configurator delivers tailored recommendations to optimize your formulation. With consultative insights, the tool supports informed decision-making to improve formulation quality and performance.

For single chemical requests, mConfig™ Configurator also conducts feasibility checks on packaging (e.g., chemical compatibility), presenting users with options.

The compositions requested via mConfig™ Configurator rely on high-quality SAFC® materials and are backed by our global quality systems, services, and support you count on.

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Key Benefits

- **Real-Time Recommendations:** Receive immediate feasibility checks and feedback on manufacturability, including suggestions for alternative components to improve consistency, performance, and process control.

- **Self-Service Request Intake:** Available from a browser 24/7, the tool simplifies new product setup requests and allows you to submit online, enhancing productivity. You can also check the status of your requests any time.

- **Improve Accuracy:** Reduce errors associated with manual handling of long lists of complex chemicals.

- **Enhanced Confidentiality:** Formulations are sent directly to the technical and manufacturing teams, strengthening confidentiality of your proprietary data.

- **Accelerated Delivery:** Readily available and qualified materials minimize sourcing delays, improve consistency, speed up request workflows, and ensure faster shipment turnaround times.

Navigating the mConfig™ Configurator

After logging into mConfig™ Configurator, from the **Home** page you can initiate the request process by selecting your product type – custom cell culture media, process chemical blend, or single process or formulation chemicals. By clicking on **My Requests** you can also view all your previously submitted requests and easily track their status.

Once you've selected your product type, the application opens, and the **left navigation bar** (Table 1) allows you to move easily between menu choices. The mConfig™ Configurator guides users to provide all information necessary to successfully submit a request. The software is responsive – changing menu options and fields based upon the product type.

Table 1: Menu options displayed change based on product type

ICON	SCREEN
	Request Initiation – users further specify the request type by choosing between an imMEDIAte ADVANTAGE® service request for pre-GMP, small-scale custom media, feeds, supplements, and buffers, or a GMP product
	Product Information – this screen captures contact information, product forecast, and the product application data
	General Information – users enter additional information and requirements, such as product application and change notification preferences
	Product Details – the information provided here regarding the manufacturing process helps with feasibility assessments and product setup
	Storage & Shipping – allows users to customize conditions in which their product is to be stored and shipped
	Labeling – all labels contain product number, lot number, pack size, product name, storage temperature, country of origin, and intended usage statement information; users may customize their product labels with additional information such as expiration date.
	Samples – users may request samples for such things as batch-to-batch consistency verification or stability testing
	Specification Testing – standard tests are set based on product type; users may customize by adding additional tests
	Packaging – this screen allows users to choose between standard or customized packaging
	Define Formulation – in this screen users can provide their formulation. The tool will offer recommendations to optimize a formulation e.g., when solubility limits are exceeded.
	Summary Page – displays all choices made in successive menus; users may save as a draft or submit a request

Throughout the application, question mark icons near text fields, radio buttons, or multiple-choice check boxes can be clicked to provide guidance and examples on how best to complete the form. In some cases, these help prompts also link to additional resources outside the application.

Example of a help dialog providing instructions

General Information

In the **General Information** screen, the user enters additional information and requirements, such as product application, whether it must be animal component free, and change notification preferences.

General Information gathers application information and change notification preferences

Define Formulation

In the **Define Formulation** screen, the mConfig™ Configurator provides feasibility checks and real-time feedback on the manufacturability of custom cell culture media and process chemicals. It leverages the digitalized expertise of our technical teams to offer immediate optimization choices, such as higher purity alternatives better suited for a specific application, components with improved solubility, or chemicals designed to minimize clumping. The configurator also checks whether materials meet quality requirements.

Changes are never made without your acceptance of the suggested alternatives, ensuring you maintain control over the formulation process.

The Define Formulation screen showing suggested alternatives to optimize a formulation

Summary Page

The **Summary Page** displays all the choices made in each successive menu in the left navigation bar. You can save your work as a draft, or you can review and submit your request.

A Summary Page displaying all selections

Technical Specifications

Logging in over a secure HTTPS connection ensures that your data and interactions within our web-based application are fully encrypted and secure. For best performance, a Google Chrome or Microsoft Edge browser on a personal computer is recommended.

A Microsoft Azure cloud-based environment assures data is securely stored and transmitted, providing far greater data protection than the practice of emailing files.

Services and Support

We offer comprehensive services, support, and documentation to get you up and running fast using mConfig™ Configurator.

New versions of mConfig™ software including updates and added features for improved functionality will be regularly released.

For additional information, please visit
SigmaAldrich.com/mConfig

To place an order or receive technical assistance, please visit
SigmaAldrich.com/support/customer-support

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mConfig_techsupport@merckgroup.com

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