



Acumatica's Process Manufacturing Suite powered by eWorkplace Apps — Chemical

Specification Sheet



eWorkplace Apps

Chemical product manufacturers operate in a highly regulated industry and must be able to manage precise formulas, track/trace lots, track physical/chemical properties, recall products, and more. They face the challenges of controlling and managing inventory levels, by-products, ingredient loss, production methods, and packaging. Chemical manufacturing involves producing a wide range of products, such as petrochemicals, agrochemicals, specialty chemicals, and more. Chemical manufacturing usually involves mixing two or more chemicals and chemically converting the raw materials to produce a product. It requires chemical manufacturers to ensure product's safety and stability and complying with industry standards. Chemical manufacturers must streamline their manufacturing operations with precision to maximize production efficiency and cost-effectiveness and they must ensure that products meet quality & safety standards and compliance requirements.

Acumatica's Process Manufacturing Suite powered by eWorkplace Apps is a comprehensive solution developed to cater to the unique needs of chemical manufacturers.

It provides process manufacturers with the ability to surpass industry challenges with real-time end-to-end visibility into their manufacturing operations, allowing them to be more efficient and profitable. An integrated quality management system allows them to perform quality control operations throughout manufacturing to ensure items meet specifications.

How can Acumatica's Process Manufacturing Suite powered by eWorkplace Apps help manufacturers ? The solution, fully embedded into Acumatica ERP's manufacturing edition, addresses the needs of chemical process manufacturers, contributing to their success and paving the way to achieving their business goals.



Product Development – Formula/Recipe Management

Developing a product by managing a precise formula/recipe is the heart of process manufacturing operations. In chemical manufacturing, raw materials such as polymers, coal, oil, gas, acids, solvents, and alkalies are measured and mixed according to specific recipes or formulations. This ensures consistent adherence to the formula/recipe, guaranteeing that every batch of the products maintains the same exceptional quality.

Ingredients you use in developing a new formula also involve different units of measure (UOM) and, in some cases, weight to volume conversions. These complex calculations related to raw material quantities, UOM conversions, losses, density, and more while developing a new product can be intricate if done manually and lead to manual errors. Acumatica's Process Manufacturing Suite powered by eWorkplace Apps enables process manufacturers to:

- » Setup and link routing steps to a formula
- » Define formula sizing and formula by weight%/volume%/specific units
- » Define raw materials with its UOM
- » Manage complex unit conversions
- » Manage by-products and consumables
- » Specify manufacturing instructions
- » Material substitution and alternate material
- » Supports sub-contracting
- » Revision control and approval workflow
- » Cost analysis and more....



Product Innovation – Laboratory

The chemical industry is varied and dynamic, continually evolving with innovations in ingredients, packaging, and production methods. Chemical manufacturers need to innovate their products to compete in a competitive market and meet shifting customer demands. Innovation extends beyond just upgrading ingredients in a formula/recipe. Innovation can include chemical products with upgraded value and implementing a new procedure or formula. The research and development department needs to keep experimenting to meet the ever-changing customer and market needs.

The laboratory module within Acumatica's Process Manufacturing Suite enables companies to bring new and improved products to market efficiently.

- » Reformulate or develop a new formula
- » Manage physical and chemical properties
- » Adjust raw material quantities to meet target values
- » What-if experimentation
- » Conduct R&D activities
- » Revision control and approval workflow
- » And more...



Product Structure – Packaging Bill of Materials (BOM)

Process manufacturers need to manage and oversee resources and identify the materials used to make a final product. They need to specify the packaging materials that will be required during production. Bill of materials provides visibility into the list of the materials needed to make a final product with accurate specifications. Chemical manufacturers are required to define different fill levels with a variety of packaging materials, including labels. A complete bill of material with all the details in a structured way results in effective resource planning and optimizes production activities. It provides a clear view of the materials required to make the final product to help avoid overstock and stockouts.

Acumatica's Process Manufacturing Suite powered by eWorkplace Apps provides:

- » Define intermediate, finished goods, and assembly BOMs
- » Define fill level, UOM, and material quantities with instructions
- » Supports BOM planning to manage resources
- » Supports visual BOM to view BOM hierarchy
- » Compare BOMs
- » Revision control and approval workflow
- » And more....



Operations – Batch Processing & Planning

Operations is when all of the planned work is actioned. The manufacturers need to monitor batch production closely to ensure consistency. You need to optimize the procurement of materials and manage inventory levels to ensure the required materials are available for production. Whether it's make-to-stock or make-to-order, you must be able to streamline your production activities to avoid production delays and losses. eWorkplace Apps allows for the creation of production orders using Acumatica's powerful MRP capability as well as direct from sales orders, enabling production planners to optimize the planning and meet customer demands on time.

Acumatica's Process Manufacturing Suite powered by eWorkplace Apps will allow you to automate and transform your production process and digitalize the activities.

- » Mix, fill, and assembly batches
- » Rework and repackage
- » Super batch to create sub-batches in one go
- » Batch sizing and batch with runs
- » Supports batch creation through sales orders and MRP
- » Identify material shortages
- » Allocate and auto-issue materials
- » Lot traceability for recalls, lot, and serial tracking
- » Manufacturing and production manager dashboard
- » And more....

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Sun Ten's acquisition and implementation of Acumatica and eWorkplace Apps integrated process and quality management solution with its ability to control both powder and liquid formula's, handle multiple pack sizes and control the production of our products along with the ability to quarantine and test products will provide us an ERP solution that helps ensure we meet our goals in the areas of safety, quality, efficacy, and consistency.

Jeff Hsu, eCommerce Supervisor
Sun Ten Laboratories

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Quality Control for Overall Operational Excellence

Quality control is a critical aspect of manufacturing. To deliver consistent products, it becomes important for process manufacturers to constantly check and verify that the products adhere to predefined quality standards. They need to ensure the product meets desired quality standards, from receiving raw materials to shipping finished products, as well as during production as products move along the production line. Implementing quality control procedures at each production stage helps to ensure the final product meets the specifications.

Understanding the paramount of maintaining and exceeding industry quality standards, Acumatica's Process Manufacturing Suite powered by eWorkplace Apps combined with Acumatica's Quality Management Solution Powered by Acumatica provides:

- » Product Testing
 - Receiving, shipping, kitting, ad-hoc, stability, warehouse transfer, inventory adjustment, return merchandise authorization (RMA) QC
 - In-process (WIP) QC to perform tests at each process step during production and production QC to test finished goods
- » Test tools, machines, fixed assets, and non-stock items
- » Document SOPs with inspection and checklist
- » Sampling plan
- » Measure test results in numeric, alpha-numeric, boolean, and combo values
- » Quarantine items until they pass the quality checks
- » Vendor certification and vendor rating
- » NC CAPA management
- » COA and lot traceability reports
- » QC, vendor rating, NC CAPA, and inspection dashboards
- » QMS mobile within the Acumatica application
- » And more...

Acumatica's Process Manufacturing Suite powered by eWorkplace Apps is a comprehensive solution providing chemical manufacturers with unparalleled manufacturing functions to help ensure efficient and effective operation. In this competitive landscape, sustainable growth depends on how your business is leveraging the best technology to thrive in the market. At eWorkplace Apps, we work hand-in-hand with partners to understand customers' requirements and ensure solutions meet the needs of the industry. Take control of your future by adopting the innovative solutions offered by Acumatica's Process Manufacturing Suite powered by eWorkplace Apps.



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