



6 Proven Practices that Fuel Profits for Chemical Manufacturers

To survive and thrive in today's competitive world, chemical manufacturers need to take the next step with technology—putting information gathered from across the entire organization to work creating profits. Forward-thinking chemical manufacturers are tightening control of operations by putting the processes and systems in place that capitalize on centralized data and greater automation.

Aging business management systems hold you back

Over time, your organization has likely cobbled together legacy systems and customizations that have led to silos of data and cumbersome processes. Burdened by aging ERP systems, managers are forced to make decisions based on incomplete, outdated information. Manual data entry and work-arounds cut productivity and further separate valuable data that could expose potential problems and uncover new opportunities.

In this document we will explore how forward-looking companies are taking a different approach, modernizing systems to build for the future. Read on to see how chemical manufacturers are taking advantage of easy-to-use, affordable ERP systems to drive innovation and profits with:

- 1. Automation and controls that ensure compliance
- 2. Agile formula management
- 3. Consistent processes that tighten quality control
- 4. Reliable practices that improve safety
- 5. Greater control throughout the manufacturing process
- 6. Focus on customer service





Automation and controls that ensure compliance

As one of the most highly regulated industries, compliance in chemical manufacturing requires a systematic approach to processes and reporting. While manual processes may have been sufficient in the past, international controls require a new level of attention to detail. Through process automation, tracking ingredient, formula and batch information across production and along the supply chain you can fulfill requirements with confidence and simplify reporting.

Manual processes put your business at risk

Legacy systems weren't designed to support today's tight regulatory environment, which leads to employees using spreadsheets to track critical data. These workarounds create data silos and the leave room for mistakes, putting your business at risk for serious penalties.

Reduce risk with consistent processes

To mitigate the costs of compliance with ever-tightening regulatory requirements, chemical manufacturers and distributors are automating processes—from formulation through production and shipping—using integrated business systems to:

- Simplify creation of GHS Compliant Safety Data Sheets (SDS) and package labels to ensure that controlled chemicals are fully represented with proper documentation.
- Ensure compliance from sales through shipping down to the state/province level.
- Automatically push formula updates to production.
- Respond quickly to a recall, ensuring accurate communication with customers and regulators.

A system that provides process automation and data management to support compliance with complex regulatory requirements will reduce risk and improve profits.





Agile formula management

In today's competitive market, your organization needs to take an agile approach to formulas. Customers want to evaluate their options, receiving samples and quotes so that they can make educated choices. Formula management, including costing analysis, needs to be easy and flexible.

Formulas independent from production

Formula management has become too important to the chemical manufacturing process to be lumped in with production. Your organization should be able to manage multiple versions of the same formula, including seasonal variations, to meet individual customer requirements. To assure your profits, quotes need to be accurate and the formulas fully documented. When the customer signs off on the contract, the final formula can be routed to production through the bill of materials.

Protect profits and ensure formula consistency

Through integrated business management systems you can support agile formula management to meet customer expectations with the assurance that contracts will be profitable. Connected data that flows through to production ensures formula consistency, compliance documentation and systematic quality control. With agile formula management, you can improve profits with:

- R&D formulation with resizing functionality delivers consistent results and accurate costing.
- Tracking of formula properties, including lab notes, to guide production processes.
- Formulas automatically published to Production BOMs/Batch Tickets for efficient data flow.
- Automated formula costing and yield calculations based on ingredients.

Integrated systems provide the data flow that assures ingredients are tracked through to finished goods for accurate SDS and package labeling.



Consistent processes that tighten quality control

In chemical manufacturing, quality control (QC) is not a single step, it's an ongoing process that needs to be tracked from procurement through customer delivery. Testing needs to be completed on incoming raw materials as well as throughout the production process, sometimes requiring multiple samples or specialized tests. To achieve consistent outcomes, companies need to define product-specific testing with set targets and ranges that are measured and reported across the product lifecycle.

QC from procurement through production

Most ERP systems were not designed for the chemicals industry, so QC isn't included across the product lifecycle. To support today's tight regulations, a full-featured QC system within your ERP allows you to automate the quarantine of lots and automatically distribute the certificate of analysis (COA) to customers with shipments.

Consistent products for customers and compliance

Manage quality control to maintain the product consistency that builds customers' loyalty and ensures regulatory compliance. An integrated business system designed for the chemical industry can meet today's QC requirements, allowing you to:

- Track test results by sample and multiple samples per batch.
- Provide easy-to-read graphical results of your test history by batch, product, test or other factors.
- Monitor and report on testing results based on preset targets and ranges.
- Implement audit controls and provide documentation to meet customer and regulatory requirements without manual reporting.

To meet today's standards for consistency and compliance, quality control built for process manufacturing should be fully integrated into your business managements systems from end-to-end.





Reliable practices to improve safety

Safety and handling are a major concern for any company dealing with potentially hazardous materials. The responsibility to employees, customers, handlers and the public extends from the production floor to the communities where your products are sold. Thorough preparation and consistent documentation can save lives and your reputation.

Prevention and preparation

When dealing with potentially hazardous materials, you must prepare for the worst while diligently working to prevent any mishap. From safety on the production floor to full documentation of processes for spill mitigation, prevention and preparation go hand in hand.

Information where and when it's needed

With fully integrated business management systems, you can drive process consistency through workflow and provide accurate documentation from procurement to delivery. Connected data and automated processes add a layer of safety management by:

- Alerting sales and service reps to avoid shipments to restricted locations based on ingredients.
- Automating creation of safety data sheets (SDS) and making the information accessible anytime, from any device throughout the product lifecycle.
- Providing Personal Protection Equipment (PPE) and hazard ratings (HMIS/NFPA) to material handlers and batch makers.
- Listing GHS and hazard information on package labels.
- The Bill of Lading based upon the GS1 US VICS guidelines, including designation of multiple emergency contacts and instructions.

With integrated systems, you can ensure that accurate safety information is always readily available to employees, customers, carriers and emergency responders.





Greater control throughout the manufacturing process

To maintain profits, you need to have accurate and real-time information about stock, pipelines and deliveries across the business. As products flow through the system, so should the data associated with each batch—from ingredients and costs through production and delivery.

Disconnected systems reduce visibility

For many chemical companies, that flow of data is interrupted due to separate systems that handle purchasing, formula management, quality control, compliance and labeling. Whether through manual data input or expensive integrations, that information needs to come together to build efficiency across the supply chain and the production process.

Centralize data for better control

With centralized real-time and historical information, you can achieve greater product and process consistency, while supporting flexibility to meet customer requirements. Visibility into data provides more control over the manufacturing process through:

- Automated material requirements and production planning options using MRP, MPS, Forecasting and ROP.
- Planned versus actual cost analysis.
- Environment, health and safety information included on documents for material handlers and batch masters.

With fully integrated business management systems you can get better control over inventory levels and costs, optimize product mix, reduce waste and increase throughput.





Focus on customer service

Just like in every other industry, customer expectations have changed. They want more choices, they want to know where their order is at every step of the way and they want delivery yesterday. That means that you have to adapt to the new way of doing business—putting critical data in the hands of the people who need it and automating service processes.

The constraints of aging systems

Older, inflexible ERP systems can't deliver the options and the level of information that customers demand today. Customer self-service, online account management and automated notifications are just some of the service options that you need to offer.

Flexibility to meet customer requirements

To deliver on expectations, sales and service employees need consistent, accurate information at their fingertips. Data across the organization needs to be integrated to support automation and online functions. A fully integrated financial supply chain management system designed specifically for chemical manufacturers can support customer service now and into the future with:

- Complete, centralized information on the status of batches as they move through the system.
- The ability for employees to drill down into records to understand exceptions and provide accurate answers.
- Support for multiple shipping options, including blind shipments and 3rd party freight payers.
- Information customers need to handle products safely and in compliance with the regulations that impact their business.

To build customer relationships and profits into the future, your organization needs the centralized data and integrated systems that support modern business practices.





Next Steps

Whether you are looking to add to your current Sage X3 installation or replace a legacy system, finding a solution that supports the unique requirement of your industry is surely a top priority. Only ERP developed specifically for chemical manufacturing will deliver the formula management, quality control and risk reduction that will build your profits quickly.

Procession: Chemical Manufacturing for Sage X3

Sage X3 has built their reputation on best-in-class production, inventory control, distribution and financial management. Procession, from Provenio Technology, completes the picture for chemical manufacturers, taking Sage X3 the last mile for regulatory compliance, formula management, quality control, manufacturing and customer service.

The only Sage Certified Solution for the chemical industry

Tested and verified to meet best practice integration methodologies for Sage X3, Procession requires no additional hardware or user training. Accessible from any Sage X3 session, Procession eliminates the need for "islands of data" that make queries and reporting difficult.





The best upgrade path for PFW

If you are still using PFW, Procession is the best answer for the decision you face. We've helped companies like yours make the transition to Procession that can deliver the functionality you need—plus much more.

Let's talk about how Procession can help you build profits. Call 855.865.3391 or email info@proveniotechnology.com.