

# BatchMaster ERP for Chemicals

*Helping you  
maintain our lifestyles  
and surroundings*



## Introduction

BatchMaster Software offers an industry specific ERP solution that helps you streamline your operations and bring your products to market, faster and cheaper, while complying with ever more stringent GHS, SARA, EPA, ISO, and Dot regulatory mandates. Whether you private-label, co-pack or produce your own line of chemical solids, solutions or gases used in a variety of industries, BatchMaster ERP for Chemicals supports your unique manufacturing requirements in product development, production, quality, costing, and compliance, while supporting all of your sales, accounting, warehousing and distribution needs.

## Overcome Industry Challenges

Meeting retailer, distributor and consumer demands can be taunting for our chemical manufacturing customers, especially in light of overseas competition and the rising cost of petroleum and certain chemical bases and additives that can adversely impact one's business. And any chemical manufacturer who relies on paper-based and people-intensive processes to document every step in their production processes is finding it more increasing difficult to comply with ever stringent regulatory mandates, environmental legislation, labor protection and quality standards, not to mention follow current good manufacturing practices (cGMP).

Today, many of our chemical manufacturing customers are appealing to a more environmental friendly public by replacing certain chemicals, especially those that are hazardous, with natural ingredients all with consideration to maintaining their products' effectiveness and reducing costs.

Let's address a few challenges that were faced and overcome by many chemical customers employing BatchMaster ERP:



## Quickly introduce new products

Developing, costing, producing and obtaining customers' approval of samples in a short timeframe is critical when trying to retain and add new customers. Product developers want better tools to create their base formulas from which unique pigments and additives can be added to produce potentially hundreds of standard and customized finished goods. In addition, they want to quickly and accurately adjust formula ingredients to meet physical and cost target values.

## Control inventory

Manufacturers want improved visibility to raw materials and base inventory in terms of weight, volume and discrete units, as well as viscosity, density, strength, and other variable characteristics. In order to optimize their resources, manufacturers want more granular, yet easier to use demand planning and production scheduling tools that will consolidate demand, calculate the correct number of batch production orders, and help one balance inventory levels for raw materials, finished goods and intermediate bases that can yield a variety of finished goods. In addition, they look for assistance in making better informed raw material procurement decisions, such as automating the generation of purchase requisitions.

## Ensure “spot on” products

One misaligned parameter setting in the plant and that product may not have the physical specifications that the customer ordered and approved. Manufacturers want preventative controls that quickly and effectively test products, verify equipment settings, investigate and determine the impact of encountered quality issues.

## Expedite recalls

The creation and assignment of lot numbers at the time of receiving and production is a challenge to many manufacturers, so automating these processes is desirable. When performing a product recall, the ability to quickly track and trace suspect products from suppliers to customers, from customers to suppliers or anywhere within production in minutes, not in days, is a necessity.

## Comply with regulatory mandates

Some manufacturers want to manage SDS / MSDS reports and labels from within their own ERP applications. In addition to safety reports and labels, SARA tier I, II, and III reports plus HAZMAT bill of ladings must be generated.

## Increase margins and profitability

To increase the bottom line, companies need to analyze their expected vs actual costs from conception thru production to customer shipments. Recognizing the need for a more granular view to accurate, real-time manufacturing data, managers want visibility to all raw material costs, based upon last purchased, standard and projected prices, and all static, scalable and tiered costs associated to labor, energy, water and other resources. In addition, purchasing wants to negotiate better terms for those raw materials that demand planning has determined there is a consolidated demand for. And to increase the top line, sales recognize that they can retain existing customers and gain new ones with demonstrated predictability, scalability and compliance across their company's operations.



## Key Manufacturing Features

BatchMaster ERP for Chemicals streamlines samples, formulation, production, quality, costing, compliance, planning, and scheduling using preconfigured templates, automated processes, and customized dashboards and reports.

## Lab and Samples

New product requests from internal and external sources can be managed from product development thru production to acceptance, including internal and customer approval workflows and communications. With access to the physical and variable characteristics of oils, pigments, resins, solvents, and additives, the system identifies those ingredients that cause either an intermediate base or product to be outside one's defined standards. Labor, water and energy costs as well as product theoretical values and substitutions are considered in the formula's physical characteristics and cost calculations.

## Separate Formulas and Packaging Bills of Material

In BatchMaster ERP, formulas and packaging bills of material are managed separately. Expected losses and gains expected during production are defined within the formulas. Product developers can perform what if analysis scenarios against a formula and then compare multiple formulas against each other, side by side. QC tests, special manufacturing instructions, direct and indirect costs can all be assigned to both formulas and packaging BOMs. With visibility to all finished good specifications, one can create formulas for intermediate bases, which can be made to stock or made to order. Multilevel workflows expedite the review and approval of formulas and packaging specifications across departments.

## Inventory

Inventory can be viewed in simultaneous units of measure - weight units (e.g. pounds, ounces or grams), volume units (e.g. gallons, liters or milliliters) and discrete units (e.g. cans, pails, drums, barrels). Item certification documentation can be maintained within BatchMaster ERP.

## Planning and Scheduling

Standing orders, sales orders and forecast entries can be used as finished goods demand inputs; inventory levels, batch production jobs, and receipts can be used as supply inputs. An accurate, detailed plan for batch production orders can be generated down to the various production steps or process cells within the production lines. Planning and scheduling takes into account the rates and capacities of mixers, reactors, fillers, packagers or other process cell equipment. Real time production adds and cuts, as well as equipment maintenance and changeovers, can easily be entered and managed using the graphical scheduling tools. To ensure these batch jobs yield their expected results, demand planning can generate the required purchase requisitions to avoid shortages or rescheduling.



## Production

BatchMaster ERP aggregates demand for finished goods, creates the optimal number of batch jobs across the production stages or process cells, allocates the best inventory and back schedules the batch jobs. Raw materials and intermediate base inventory can be reserved or hard allocated to specific customer orders and their associated batch jobs. Formulas can be dynamically adjusted to compensate for available inventory characteristics (e.g. viscosities, densities, strengths) in order to meet specified target characteristics. In addition, batch job formulas can be manually adjusted to compensate for temperature, humidity, and pressure. Batch job releases and completions can be managed on an individual basis, which initiates all the necessary inventory pulls, QC tests and manufacturing instructions. Certain batch jobs can be linked together and back scheduled or sequenced using the Super Batch feature. Manufacturers can manually capture inventory usage or automatically back flush inventory when closing batch jobs, as well as capture actual costs and other batch job data.

## Safety and Quality

System libraries for sample inspections, QC tests, checklists and special manufacturing instructions against formulas, finished goods, equipment and processes can be established. Received goods may be quarantined until associated vendor samples are released by QA. In terms of ensuring the stability of certain stored ingredients, users can be directed to check intermediate and finished good inventory in storage. Some procedures may just be informative in nature, where others require an acknowledgement or simple data entry. QC tests for density, strength, VOC, and other conditions require data collection and validation, and may result in further retesting or reworking. In all situations, the manual or system assignment of quality statuses to inventory will determine its disposition and availability. Customizable COAs are generated upon batch job completions.

## Costing

Raw materials costs based upon last purchase price, standard costs, or projected costs are rolled up along with fixed, tiered and scalable labor costs. Cost estimates can be managed during product development of formulas, including intermediate bases, and packaging BOMs. Actual costs, yields and other KPI's are captured during production, and can be compared against projections in a variety of analytic reports.

## Compliance Reports and Labels

As an integral part of the manufacturing suite, product development can generate customized 16 section SDS reports and labels that are in full compliance with GHS reporting standards. Hazard notifications are determined by checking individual and aggregating multiple ingredient levels against system maintained CAS, supplemental product data and hazardous product rules. Hazardous material ratings, manufacturer's name and address, reportable components, occupational exposure limits, can be included in the SDS templates - and then printed in different languages. HAZMAT bill of ladings, VOC and SARA tier I, II and II reports can be generated. In addition, key transactions are maintained in history logs for auditing purposes, including formula modifications during development and production.

## Lot Traceability and Recalls

Lot number information is captured or auto generated at the time of receiving, auto generated for intermediates and finished goods, and then validated during finished goods distribution. A bi-directional view of lot controlled inventory enables users to track the creation and movement of suspect products from delivery to shipping, shipping to delivery, and anywhere within production. Recall reports and personalized customer letters are available.

## Mobile

Warehouse activities that support receiving through production to shipping tasks, including manufacturing related inquiries, QC related inspections and instructions, can be executed via mobile devices.

## Dashboards and Reporting

Customizable role-based screens provide visibility to critical manufacturing data, including inventory consumption and balances, actual versus expected yields and costs, and quality control results and trends.



## Key Front Office Features

Available as a total financial and manufacturing ERP solution, BatchMaster ERP for Chemicals adds a tailored front office suite, including CRM, to its modular manufacturing and mobile warehousing product suite. Front office modules include:

### Accounting and Financials

Capture, measure, analyze and report the cost of doing business, specifically the cost of intermediates and finished goods from the lab through to customer shipment.

### Sales

Convert sales quotations into customer samples, then track and report on the status and profitability of every customer campaign, quote and order shipment, including their discounts and promotions.

### Purchasing

Employ economies of scale to purchase raw materials from approved, certified vendors to feed planned batch production jobs created from demand planning.

### Maintenance

Plan, schedule, and execute predictive and preventive maintenance activities against production line and warehouse equipment to optimize equipment availability and utilization.

### Distribution

Effectively manage store replenishments, inbound and outbound activities across one or more facilities, as well as inter warehouse transfers.



## Recognize These Benefits

By gaining greater control over product development and production, improving planning and scheduling, balancing inventory, and reducing costs and variances, companies employing BatchMaster ERP for Chemicals are increasing their profit margins, gaining market share and improving their bottom line.

### Rapidly Develop New Products

From minimizing petrochemicals usage to developing new water and oil based products, your team of product developers will have the tools to quickly introduce new products to the marketplace. Advanced programming reduces your time spent on tedious, error-prone manual calculations in designing, updating and approving products that meet your targeted physical, nutritional and financial characteristics

### Better Inventory Control

Accurate, granular demand planning and production scheduling optimizes your procurement and production of raw materials and finished goods, respectively, which will give you better control over inventory balances and space utilization within your plants.

### Quickly Scale Up Production

Automation of your batch and continuous flow production processes reduces the need for manual intervention. Dynamic recipe adjustments, auto sizing and scheduling of batch job all work together to streamline production, while reducing the delays, risks and costs of excessive changeovers and operational downtimes. The establishment of a comprehensive, online quality program allows you to improve current processes, keep production line equipment settings at their optimal settings and ensure your manufacturing processes can meet the increased in demand.

### Avoid Customer and Industry Fines and Penalties

Keep compliant with industry specific and federal regulations, in terms of safety reporting, shipping documentation, lot traceability and recall requirements. Bi-directional lot tracing enables you to report on suspect products in minutes, not days - minimizing the scope of the recall. You can now establish effective mock recall programs with your suppliers and customers. By establishing a comprehensive quality program, you can avoid order shortages and color match issues. And with a thorough and easily accessible audit trail of key business transactions, you will be in compliance with your auditors' record-keeping requirements.



## Reduce Costs

You have the means to manage costs upfront during product development. Demand planning and production scheduling reduces the costs of excessive labor and inventory, as well as the costs associated to equipment clean-downs and changeovers. And with a quality program enacted at the time of receiving thru customer shipments, you will reduce the cost of returns.

## Increase Sales

Leverage BatchMaster ERP's quality, traceability and compliance capabilities not only to retain your valuable customers, but to gain new ones.

## Improve Management Reporting and Analysis

Customizable role-based screens provide you with accurate, real-time visibility to those key metrics that will help you to make better informed decisions, faster, and maintain your competitive edge.

## Take The Next Step

BatchMaster ERP for Chemicals gives you greater control over your business, from sales, procurement, and manufacturing to accounting and customer service. Our solution can be rapidly deployed as an add-on to your existing financial solution or as a total financial and manufacturing solution. BatchMaster ERP for Chemicals gives you system adaptability, accountability, reliability, scalability and traceability - all the system abilities you need to profitably grow your business.

As an industry focused solution provider, BatchMaster Software is ready to help you meet your business objectives, so please contact us today to discuss your business requirements:

For more information please contact:

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