![BATCHMASTER — ERP Software for Process / Batch Manufacturers]

Formulation For Chemical Related Industries

Bring new products to market, faster and cheaper

Features

- Separation of formulas from finished goods packaging bills of material
- Integration with user defined product physical characteristics
- Dynamic reformulation based upon ingredient characteristics, weight, volume and cost
- Embed QC test, special instructions and costs
- Perform formula "what if" analysis and side by side comparisons
- Employ workflows to gain formula approval
- Offers formula version control with roll-back capability and audit trail

Benefits

- Focus on formula development rather than finished goods packaging development
- Speed product development and formula approval
- Establish formula admin guidelines and reduce formula proliferation
- Ensure compliance with industry databases and regulatory mandates

Introduction

Formulation manages the formula specifications of intermediates and products, including co-products and by-products, from product development through production, for chemicals, cosmetics, life sciences and other SDS/MSDS controlled industries.

In a formula, product developers define the ingredients needed to produce a product plus any required QC steps, special manufacturing instructions and labor costs. The ability to split a product formula from the finished good's multiple packaging configurations, offers greater control over the development and maintenance of product formulas.

To ensure that a product formula meets its defined target, in terms of weight, volume or physical characteristics, the Formulation module can dynamically size the formula, changing the quantities of certain ingredients. "What if" scenarios and side by side comparisons of formulas provide drill down analysis of its ingredients, costs and other characteristics.

Formulation offers full security control over intermediate and product formulas, including a user defined workflow approval process. All formula changes and approvals are captured in an audit log. Full version control provides rollbacks to older versions.

Key features

Ensure Target Characteristics

Ingredients have certain physical characteristic values, defined in system databases, which are rolled up in the formula profile. Theoretical costs can be assigned to conceptual ingredients.

Formulation dynamically adjusts formula ingredients to meet physical, weight, volume and costs target values. If any characteristic value of a given formula is exceeded, the quantities of the other ingredients in the formula will be dynamically adjusted to meet the formula's target values.

Material substitution will auto adjust other formula ingredients to maintain the original formula target values. Substitution rules check whether or not an ingredient substitution is allowed within this type of formula, based upon the presence of other ingredients (e.g. allow substitution only in oil-based formulas).

Embedded Costs

The cost of the formula of an intermediate or finished good is calculated by rolling up the costs of its ingredients. Fixed and setup costs, as well as scalable and tiered labor costs can be added. Conversion of one cost to other (standard to base) enables viewing formula cost in different costing methods. Theoretical costs can be assigned to a conceptual ingredient.

Embedded Quality Control

QC tests define acceptable and out of tolerance values, sampling and retest conditions. QC tests can be selected from a user defined library and added to the formulas of intermediates and products.

Embedded Manufacturing Instructions

Instructions define one or more required steps during production. Instructions can be selected from a user defined library and added to the formulas of intermediates and products. Also, one can add an adhoc or formula specific instruction to the formula.

Intermediate Management

A multi-level formula can be created by creating an intermediate formula then adding it as an ingredient in a higher level formula. An intermediate allows product developers to build a baseline or standards, and quickly alter multiple finished goods formulas by simply changing the common intermediate formula. An intermediate expansion report drills down into the formula hierarchy.

During batch production, intermediates are produced first, then immediately used in the subsequent batch production job to produce the finished goods, or be stocked for a future production batch job.

Formula Analysis

Multiple formulas can be compared in terms of their ingredients, labor and other characteristics. All formulas can be searched for a specified ingredient using a "where used" inquiry, which is useful when making substitution and intermediate production decisions.

Formula Approval

Formulas are approved using user defined multi-level workflows. Upon insertion, deletion or any changes made to a formula, authorized approvers are notified of the changes and are granted access to view and approve specific formula data, such as ingredients, costs or physical characteristics. Upon approval, the formula is given an 'effectivity date', which indicates when it becomes active or eligible for batch production.

Version Control

A new version is created whenever a formula is modified. One can view and compare different versions of the same formula. If the new version is not approved or if the active version is not working properly, one can roll back to a previously working version. A full formulation revision history is maintained and available for audit reports.

Sample Specifications

Sample specifications can be created based upon customer or sales requests. In addition to adding ingredients, costs and other formula line items to the sample specification, the sample's packaging bill of materials can be added. The requestor's profile is defined, along with contacts and product requirements. Customer communication activities, including approval notices, can be tracked within the samples feature.

About BatchMaster Software

BatchMaster Software offers a proven set of comprehensive, modular financial and manufacturing ERP solutions for formula-based process manufacturers.

For more information, please visit www.batchmaster.com or email your inquiry to sales@batchmaster.com